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THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

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VOLUME 38

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THE INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

The Trust (Registered Charity No. 211944) will shortly be launching a world-wide appeal for more funds for the International Commission on Zoological Nomenclature.

The Commission has to plan for expansion to meet the growing demand for its work and for the needs of zoologists in the developing countries. It must be able to maintain its reliable service to all zoologists and paleontologists.

Readers are invited to help make this forthcoming appeal a success by agreeing to assist in one or more of the following ways:

1 — to give a donation
2 — to subscribe to the *Bulletin of Zoological Nomenclature*
3 — to supply the name and address of anyone they know who may be willing to give financial assistance or to whom an approach may be made.

The address to send help in the way suggested, or for any further information, is:

Dr F.G.W. Jones, Managing Director and Secretary,
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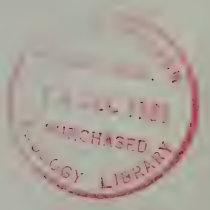

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NOTICES

(a) *Date of commencement of voting.* In normal circumstances the Commission may start to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.* The possible use by the Commission of its plenary powers is involved in the following application published in this present part of the *Bulletin*:

Xenocrepis Foerster, 1856 (Hymenoptera: Chalcidoidea): proposed designation of a type species. Z.N.(S.) 1437. The Secretary.

(c) *Receipt of new applications.* The following new applications have been received since the publication of vol. 37 (4) on 4 December, 1980. That marked with an asterisk involves the application of Articles 23a-b and 79b.

*(1) *Sagartia luciae* Verrill, 1898 (Coelenterata, Actinaria): request for nomenclatural precedence. Z.N.(S.) 2363. R.W. Seaton.

(2) *Simulium amazonicum* Goeldi, 1905 (Diptera: Simuliidae): proposed suppression of syntypes and designation of neotype. Z.N.(S.) 2364. A.J. Shelley.

(3) *Puzosia* Bayle, 1878 (Mollusca, Ammonoidea): proposed designation of a type species. Z.N.(S.)2365. M.R. Cooper, C.W. Wright and W.J. Kennedy.

(4) *Hyla femoralis chrysoscelis* Cope, 1880 (Amphibia, Anura): Proposed type designation. Z.N.(S.)2366. H.M. Smith, K.T. Fitzgerald and L.J. Guillette, Jr.

(5) *Ecliptopera capitata* Schäffer, 1839 and *Psodos coracina* Esper, 1805 (Insecta, Lepidoptera): proposed conservation. Z.N.(S.)2367. K. Mikkola.

(6) *Bainella* Rennie, 1930 (Arthropoda, Trilobita): proposed conservation. Z.N.(S.)2368. M.R. Cooper.

SPECIAL ANNOUNCEMENTS
INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

MEMBERSHIP OF THE TRUST

We are glad to announce that Dr J.H. Callomon, F.R.I.C. (of the Department of Chemistry, University College, London) has kindly agreed to serve on the Trust and was elected in November, 1980.

SIZE OF BULLETIN

A number of Opinions, New Applications and Comments are now in proof and to speed up their publication it has been decided to increase the size of *Bulletins*, at least during 1981. Readers will therefore notice that this present part has twelve extra pages. This enlargement entails higher printing costs, but throughout 1981 the price of the *Bulletin* will stay at the level already announced in vol. 37, part 4, namely £40 or £10 per part.

FINANCIAL AND OTHER SUPPORT

The slender finances of the Trust and the Commission are faced with continuing inflation and rising costs. We renew our appeal to all those, whether individuals, organisations or institutions who value the work of the Commission and find it useful, to give us their financial support.

The Trust has great pleasure in announcing that Sir Peter E. Kent, F.R.S., Chairman of the Trust, has most kindly offered an interest-free loan of £2,000 towards the cost of publication of the Code. We are extremely grateful for his generosity.

Under United Kingdom legislation the Trust is a registered charitable institution and we are pleased to announce that since September, 1980 we have benefited from Nat West Enterprises, who have kindly provided an assistant, Mr J. Barnes, to help the Trust's accountant on a short term basis without any charge to us. We are very grateful for this help.

The Secretariat of the Commission acknowledge with grateful thanks the assistance on certain very complicated applications being given by Dr L.B. Holthuis, Emeritus Professor Alastair Graham, F.R.S. (of the Department of Zoology, University of Reading) and Mr R.W. Sims (British Museum (Natural History), London).

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
January 1981

FINANCIAL REPORT FOR 1979

During 1979 sales of the International Code, Bulletin of Zoological Nomenclature, Opinions and Official Lists brought in £8925 (£7050 during 1978). The cost of printing the Bulletin was £4422 (£3813) and that of supporting services and administration £10,440 (£5969), making a total of £14,862 (£9782). Increased costs arose from inflation, printing, secretarial help and the employment of an assistant during the preparation of the third edition of the Code. The last entailed much extra work for Mr. Melville and his small staff. The working deficit for the year was £5937 (£2732) which was partly covered by interest on reserves of £673 (£450) and donations from member countries of IUBS amounting to £2334 (£508). These sums reduced the working deficit to £2930 (£1774), and the year ended with a surplus of £2070 (deficit £1790) and reserves of £7825 (£5755). This was due to a grant of £5000 from H.M. Government made by the Advisory Board for the Research Councils (U.K.) via the Royal Society, but for which the deficit would have absorbed most of the Trust's reserves and it would have ceased to function in 1980. Publication of the Bulletin of Zoological Nomenclature would have terminated and there would have remained no organisation to complete the preparation and publication of the new edition of the International Code.

The Trust continues to receive cost-free accommodation for the Commission's offices in the British Museum (Natural History) and the services of Mr. R.V. Melville, Mrs. M. Speak and Mr. Leonard at emoluments far less than they would command on the open market. Subject to approval, the Royal Society will pay £5000 in 1980/81 and 1981/82, but not thereafter. Because donations from member countries have ceased, the $ 10,000 received from IUBS in 1980 will represent a net gain of no more than £2166. The IUBS contribution will, it is hoped, continue in 1981 and 1982. Thereafter, the Trust will need at least £10,000 a year at 1980 prices from outside sources if it is to survive beyond 1982 on the present inadequate organisational basis; a very much larger sum must be found if the Commission's work is to be funded realistically. Funds will also be required to assist with the publication of the new edition of the Code.

F.G.W. JONES
Managing Director and Secretary, International Trust for Zoological Nomenclature.

11 November, 1980

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE
BALANCE SHEET AS AT 31st DECEMBER, 1979

	1978			
		FIXED ASSETS		
		OFFICE EQUIPMENT at cost	611.42	
		Addition during the year	189.00	
			800.42	
		Less: Accumulated Depreciation	476.88	
	170			323.54
		CURRENT ASSETS		
2,211		Amounts due from Sales	4,877.07	
61		Income and other Taxes Recoverable	24.55	
4,796		Cash at Bank and in Hand	5,928.53	
	7,068			10,830.15
	7,238			11,153.69
		CURRENT LIABILITIES		
1,459		Sundry Creditors	2,156.38	
25		Subscriptions Received in Advance	1,172.26	
	1,484			3,328.64
	£5,754			£7,825.05
		REVENUE RESERVE		
		GENERAL RESERVE		
	7,544	Balance at 31st December, 1978		5,754.65
	1,790	Surplus for the year (1978 Deficit)		2,070.40
	£5,754			£7,825.05

NOTE: The Stock of Publications has not been valued.

P.E. Kent)
L.B. Holthuis) Members of the Management Committee

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1979

1978				
	SALES OF PUBLICATIONS			
837	International Code			377.17
6,199	Bulletin of Zoological Nomenclature			8,502.89
14	Opinions			.00
–	Official Lists			44.42
7,050				8,924.48
508	DONATIONS			7,334.42
350	INVESTMENT INCOME			.00
100	BANK DEPOSIT INTEREST			673.07
8,008				16,931.97
	Less: ADMINISTRATION EXPENSES			
	Salaries and National Insurance			
4,510	Contributions	7,890.36		
1,415	Office Expenses	2,438.46		
75	Audit Fee	75.00		
6,000		10,403.82		
	Printing and Distribution of			
3,813	Publications	4,421.80		
19	Depreciation of Office Equipment	35.95		
9,782				14,861.57
1,774	SURPLUS FOR THE YEAR (1978 DEFICIT)			2,070.40
16	LOSS ON LOAN STOCK REDEMPTION			.00
£1,790	BALANCE carried to BALANCE SHEET			£2,070.40

REPORT OF THE AUDITORS

In our opinion the above Balance Sheet and annexed Income and Expenditure Account give a true and fair view of the state of the Company's affairs as at the 31st December, 1979 and of the operating Surplus for the year ended on that date and comply with the Companies Acts, 1948 and 1967.

3, Great James Street, Bedford Row, London, WC1N 3DH

3rd November, 1980

MORLEY, GRAYRIGGE & CO.
Chartered Accountants

COMMENT ON THE PROPOSED NEOTYPE DESIGNATION FOR *CALYMENE VARIOLARIS* BRONGNIART, 1822 (TRILOBITA). Z.N. (S.) 2189

(see *Bull. zool. Nom.* vol. 33, p. 250; vol. 35, p. 15)

By Gerhard Hahn (*Fachbereich Geowissenschaften, Universitätsgebiet Lahnberge, 3550 Marburg, BRD*)

Tripp *et al* propose to designate a neotype for *Encrinurus variolaris* in 'harmony with current use'. Howell *et al.* oppose this proposal, remarking that 'reference to the Commission is not necessary'. If the Code is thus strictly applied, 'current use' is indeed seriously disturbed. Species A of Brongniart (with genal spines), now known as *E. tuberculatus*, must be called *E. variolaris*, whereas Species B of Brongniart (without genal spines), now known as *E. variolaris*, will be left without a name. I think that this problem is indeed important enough to be treated by the Commission. I also think that the proposal of Tripp *et al.* will better help to stabilise nomenclature than will the hope that the lost types of Brongniart will one day be found.

ANASPIS MÜLLER, 1764, ETC. COMMENTS ON PROPOSED DESIGNATIONS OF TYPE SPECIES. Z.N.(S.)2240

(see vol. 36, pp. 161–166)

(1) By I.M. Kerzhner (*Zoological Institute, Academy of Sciences, Leningrad, USSR*)

The problem of the four coleopteran generic names discussed by Silfverberg is only a part of the general problem of Geoffroy's 1762 generic names not already considered by the Commission. My proposal on this larger problem was sent to the Secretary in October 1978 and its receipt was announced in *Bull. zool. Nom.* vol. 35, p. 194. According to the Secretary, my paper cannot be published at present.

My proposal on the four names in question coincides with that of Silfverberg, except for the authorship of the names (see also Silfverberg, 1978, *Notul. entomol.*, vol. 58, pp. 117–119). First, Müller, 1764, merely reprinted both the names and the diagnoses from Geoffroy's 1762 work under the heading 'Insectorum divisio methodica Domini Geoffroi'. As Geoffroy, not Müller, is responsible both for the names and for the conditions that make them available, the correct authorship is Geoffroy *in* Müller, 1764 (Code Articles 50, 51c). Secondly, in previous rulings of the Commission in analogous situations, eleven generic names were validated under the plenary powers with 'Geoffroy, 1762' as the author and date (Opinions 281, 441, 442, 645, 681, 683, 731). In two cases plenary powers were not requested and not used (Opinions 703 and 906) and the names were wrongly credited to Müller, 1764 and Schaeffer, 1766. Conformity with the majority of former rulings and conservation of the authorship widely used in the past and often even up to the present seems to be highly desirable. I therefore propose that the plenary powers be used to validate all four generic names as from Geoffroy, 1762. A complete discussion of the problem is given in my unpublished paper mentioned above.

Some minor corrections not affecting the essence of Silfverberg's proposal should be made. For *Anaspis nigra, A. bicolor, A. maculata, Luperus ulmarius* and *L. betulinus* the correct authorship is Geoffroy *in* Fourcroy (as stated in the preface to the book, Fourcroy was only the editor), and for *Luperus luperus* it is Fuessly, 1775. '*Luperus pallidus* Müller' is a new combination for *Chrysomela pallida* Linnaeus, 1758 (now in *Gonioctena*). The first designation of *Chrysomela flavipes* Linnaeus as type species of *Luperus* is by Latreille, 1810, p. 432 ('*Crioceris flavipes* Fab.; ejusd. *rufipes*'; here *rufipes* is clearly mentioned as a synonym of *flavipes*, not as a second species). If Latreille's action seems ambiguous, the next citation of the same type species is by Curtis, 1831, *Brit. Entomol.*, p. 370. The first designation of *Attelabus apiarius* Linnaeus as type species of *Clerus* is by Curtis, 1824, *Brit. Entomol.*, p. 44.

(2) By F.C. Thompson (*Systematic Entomology Laboratory USDA, c/o U.S. National Museum, Washington D.C. 20560, U.S.A.*)

The genus-group names involved here are those of Geoffroy, 1762, not of Müller, 1764. When the Commission agreed to reject Geoffroy's work for nomenclatural purposes (Opinion 228) it also invited specialists to submit proposals for the validation of particular names in that work.

This course was followed for a number of the Geoffroy names: *Corixa* (Opinion 281); *Stomoxys, Volucella, Nemotelus, Scatopse* and *Bibio* (Opinion 441); *Stratiomys* (Opinion 442); *Perla* (Opinion 645); *Naucoris* (Opinion 681); *Scolytus* (Opinion 683) and *Psylla* (Opinion 731).

Silfverberg's proposal is contrary to the above tendency because he has requested that the names be accredited to Müller. This would cause confusion because most authors, as well as such standard reference works as Neave, *Nomenclator Zoologicus*, and Sherborn, *Index Animalium*, besides Müller himself, have cited Geoffroy as the author of these names. To assign the authorship to Geoffroy does not affect the proposed type-species designations in any way.

I therefore urge the Commission to use its plenary powers as requested by Silfverberg, but to validate the names as from Geoffroy, 1762, as it has done in the other cited cases.

(3) by the Secretary, International Commission on Zoological Nomenclature

The delay in the publication of Dr Kerzhner's application concerning 36 generic names in Geoffroy, 1762, is regretted. To scrutinise and verify so large and complicated an application, however, demands much continuous time, and under present conditions this is simply not available. Specialist help was fortuitously available when Dr Silfverberg's application came up for examination, and it was used in preparing the case as thoroughly as possible. Dr Kerzhner's application deserves no less thorough treatment and will receive it when possible. At present there is no staff for the purpose, nor any funds to pay staff.

On the general issue of names in rejected works, the Commission has a choice between three courses of action. It may (a) validate such names from

the work in question, using its plenary powers; (b) accept those names as from their first subsequent publication as available names; or (c) accept the next names made available for the same taxa. Dr Silfverberg has chosen to propose course (b). This seems to me consistent with the original intent of Opinion 228, which was to reject Geoffroy's work as being not consistently binominal, and therefore to signify a continuity of policy that is in itself desirable. Since it is accepted by Dr Kerzhner and Dr Thompson that the meanings of the generic names are not affected and that the issue they raise is a merely formal one of author and date, the Commission should be offered their proposal as an alternative to Dr Silfverberg's.

COMMENT ON THE PROPOSED REJECTION OF LACEPÈDE'S "HISTOIRE NATURELLE DES SERPENS". Z.N.(S.) 1985

By Jay M. Savage (*Department of Biological Sciences and Allan Hancock Foundation, University of Southern California, Los Angeles, California, U.S.A. 90007*)

Brongersma, 1972, *Bull. zool. Nom.* vol. 29, pp. 44–61, reviewed in depth the composition, sources and subsequent editions and reprintings of Lacepède's work on snakes, originally published as part of the "Suites à Buffon" in 1780–1790. This communication is a response to the Brongersma proposals. In the following, to avoid unnecessary repetition, I use the same references cited by Brongersma.

Although Brongersma's application to the Commission involves seven items, these may be grouped into two: (1) a request to reject all of Lacepède's works on snakes as being non-binominal; (2) *if* the works are not rejected, then to suppress one generic and five trivial names proposed by Lacepède, which are nomina oblita. This is now a plenary powers matter.

Savage, 1952, Savage & Oliver, 1952, and Mertens, 1958, argued in favour of interpreting Lacepède's works as binominal. Nevertheless, after reviewing Brongersma's argument and reanalysing Lacepède's books, I am forced to agree that there is substantial question regarding the conformity of these works to a consistently binominal mode as required by Article 11c of the Code.

The second set of questions raised by Brongersma, (a) the priority of *Coluber flavocaeruleus, Coluber oularsawa* and *Coluber oryzivorus* (all of Lacepède, 1789) over the well-established name *Boa reticulata* Schneider, 1801 for the Indian rock python; (b) the priority of the generic name *Langaha* Lacepède, 1789 over *Langaha* Bonnaterre, 1790; and (c) the priority of *Langaha langaha* Lacepède, 1789 over *Langaha madagascariensis* Bonnaterre, 1790 and *L. nasuta* Shaw, 1802, is completely resolved if Lacepède is suppressed.

The only reasonable alternative to the situation is to:

1. Rule that Lacepède's 1780–90 *Histoire naturelle des Serpens*, is not consistently binominal and should be placed on the Official Index of Rejected Works in Zoology.

2. Refuse to approve Brongersma's request regarding the

suppression of *Langaha madagascariensis* Bonnaterre, 1790, but instead place that name on the Official List of Specific Names in Zoology.

Only the last item needs explanation. The name *Langaha madagascariensis* Bonnaterre, 1790, has priority over *L. nasuta*, Shaw, 1802. No confusion can possibly result since the genus is monotypic and restricted to Madagascar; *L. nasuta* is not a name of wide usage in ecological, physiological or general works; indeed, the name *madagascariensis* more readily identifies the species than *nasuta*.

The result of these actions in no way affects any names conserved under Opinion 524 and supports the result of Opinion 525.

COMMENT ON THE PROPOSED CONSERVATION OF *NETTASTOMELLA* CARPENTER, 1865 (BIVALVIA). Z.N.(S.)1054

(see vol. 37, pp. 114–116)

By Lee A. Schremp & Jack D. Mount (*Geology Museum, University of California, Riverside CA 92521, USA*)

We feel that the Commission should reject the petition to conserve *Nettastomella* Carpenter, 1865. The best interests of nomenclatural stability will not be served by the suppression of the earlier *Netastoma* Carpenter, 1864. The recent works listed in the petition by Coan & Kennedy (McLean, 1969; Keen & Coan, 1974; Coan & Carlton, 1975), all of which use the older name, are currently the standard references for the Californian Province. To them can be added McLean, J.H., 1978, Marine seashells of southern California, *Los Angeles Mus. nat. Hist. sci. Ser.* no. 24, 104 pp. 54 figs. Further, the Law of Priority is a fundamental precept of the code of nomenclature and any overruling of it should occur only in instances of clear non-usage of an older name. This is certainly not the case with this problem.

We therefore request the Commission (1) to place the earlier name *Netastoma* Carpenter, 1864 (gender: neuter), type species, by monotypy, *Pholas darwinii* G.B. Sowerby II, 1849, on the Official List of Specific Names in Zoology, and (2) to place the specific name *darwinii* G.B. Sowerby II, 1849, as published in the binomen *Pholas darwinii*, on the Official List of Specific Names in Zoology.

THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE: RESULT OF VOTE ON PROPOSALS FOR SUBSTANTIVE AMENDMENTS (THIRD INSTALMENT) Z.N.(G.)182

By the Secretary, International Commission on Zoological Nomenclature

This report presents the results of a further vote on some of the proposals for substantive changes in the International Code of Zoological Nomenclature put forward by the Editorial Committee. They were not published one year before the vote was taken, but were identified in discussion by the Special Session of the Commission at Stensoffa or at the General Meeting at Helsinki. All were considered to arise so naturally out of proposals already published, or to affect such minor points of drafting, that it was not thought necessary to put them through the full Declarations procedure. All were published in the report of the Stensoffa and Helsinki meetings (*Bull. zool. Nom.* vol. 36, pp. 211–221). The present vote was taken so that the Commission will be able to assure the Division of Zoology of IUBS that the instructions received from the Section on Zoological Nomenclature at Helsinki (on the procedures to be followed for completing work on the third edition of the Code) have been followed to the letter.

2. The vote concerns paragraphs 21, 11, 9, 10, 12, 25 and 29 of the report referred to above. Of these, paragraphs 9, 10, 21, 25 and 29 fall into the category just mentioned. Paragraph 11 presents a point that arises naturally out of point 5 on V.P.(79)1. By that vote the Commission decided that generic and specific names published after 1930 with a single combined description of the genus and species should be available; that provision has now been extended to cover family-group and generic names published with a single combined description.

3. The Committee decided to divide paragraph 12 of its report into two parts and to call for a vote at this point only on the first three and a half lines (up to the semicolon after the word 'parts'; see *Bull. zool. Nom.* vol. 36, p. 214). The remainder of this paragraph is still under discussion.

4. The Commission was accordingly called upon to vote on the above paragraphs in V.P.(80)15 issued on 9 April 1980. The paragraphs were presented as follows:

V.P.(80)15

Vote No.	Article in Code	Commission Report to Section on Zoological Nomenclature, Helsinki, 1979, Section B
1	11f(i) 42c	21. A generic name that has come to be used as the name of a collective group may continue in that use notwithstanding that the taxon has a type species. The Code Article 11f(i) provides that names for collective groups are treated as generic names, and that collective groups require no type-species (Art. 42c). However, names that have become used for collective groups may be already available names for genera with type species fixed. It is undesirable to require such names to be placed in synonymy with names validly used for other genus-group taxa and removed from the collective groups to which they are applied. While such a name is in use for a collective group, it would be treated as though it has no type.
2	13a	11. That a new generic and a new family name proposed together as new after 1930 with a single description serving for both are not made unavailable solely on the grounds that there are not separate descriptions that are presumed to differentiate or distinguish the taxa. If they satisfy the other provisions of the Code governing availability such names would both be available. Under Article 13a a name proposed after 1930 must, unless a replacement name, be accompanied by a statement that purports to give characters differentiating the taxon or by a bibliographic reference to such a statement. The Commission in VP(79)1 (*Bull. zool. Nom.* vol. 36: 66–70) has voted to make generic and specific names characterised in a single combined description available after 1930 as well as before 1931 (unless they are not available for some other reason). The Committee *recommends* that the action relating to genus-group and species-group names be completed by accepting the same principle for family-group and genus-group names.
3	16a(i)	9. To require when an indication for a name proposed before 1931 consists of a bibliographic reference to a previously published description, definition or illustration, that the name so indicated must be treated as valid in the work in which both the name and the bibliographic reference occur. Under Article 12 and Article 16 a(i) an author prior to 1931 can

Vote No.	Article in Code	Commission Report to Section on Zoological Nomenclature, Helsinki, 1979, Section B
		make a previously unavailable name, or a newly proposed name, available by publishing with it as an indication a bibliographic reference to a previously published description. Such names would only become available by that action if, in the work in which the name and the reference are published together, the author has employed the name as a valid name. The provision is implicit in Article 1, but that fact can be overlooked.
4	17	10. To provide that the status of an unavailable name is not changed by mere citation (in synonymy or otherwise) of the name and a bibliographic reference to the work in which it was published in a manner that did not satisfy the criteria of availability. The Committee *recommends* that this matter be made explicit.
5	26	12. That an available compound epithet published as separate words based on the name of a place or a saint, one being an abbreviation, shall be amended by writing the abbreviation in full and uniting the parts.
6	67	25. That a designation of a type species made in contravention of the provision that the name of a type species is the binomen (or trinomen) in its correct original spelling and original combination would be valid but the name of the type species should be correctly cited by subsequent authors. In VP(79)1 (*Bull. zool. Nom.* vol. 36: 66–70) the Commission adopted a recommendation that the name of a type species is the binomen or trinomen in its correct original spelling and original combination (see A14 above). This addition completes the provision.
7	75	29. To specify that the designation of a specimen to be a neotype other than in accordance with and under the conditions specified in the Code in the 'cases admitted' (2nd Edn Art. 75a) is not a valid designation and the specimen so designated not a neotype. The Code Article 75c lists qualifying conditions and specifies that a neotype is validly designated only when published with certain specified particulars. In additon (Art. 75a) the Code states that a neotype 'is to be designated only in connection with revisory work, and then only in exceptional

circumstances' that are specified, but it is not explicit that a neotype designated under circumstances other than those described in Article 75a has no status in nomenclature. The proposal provides that neotypes designated in circumstances other than those admitted in the Code are invalid.

At the close of the voting period on 9 July 1980, votes had been received in the following order: Sabrosky, Melville, Heppell, Holthuis, Nye, Mroczkowski, Vokes, Dupuis, Corliss, Brinck, Trjapitzin, Willink, Ride, Bayer, Kraus, Hahn, Starobogatov, Halvorsen, Alvarado, Binder, Tortonese, Welch, Bernardi. The state of the voting was as follows:

		For	Against
(1)	Article 11f(i), Availability	19	2
(2)	Article 13a, Availability	22	0
(3)	Article 16a(i), Indications	20	1
(4)	Article 17, Non-availability	20	2
(5)	Article 26, Formation of names	21	1
(6)	Article 67, Type species	22	0
(7)	Article 75, Neotypes	22	0

Dupuis abstained on all points and Trjapitzin on Points (1) and (3). No voting papers were returned by Habe and Cogger.

The following comments were sent in by members of the Commission with their voting papers:

Vote 1

Holthuis: 'A nominal genus can never lose its type species, not even when any zoologist uses its name for what he calls a "collective group".'

Trjapitzin: 'In this case I refrain from voting because the addition makes the text of the article longer but does not change its sense.'

Ride: 'In voting in the affirmative, I must make it clear that the vote is confined to the content of the first sentence. While there is no objection to such names being cited as junior synonyms of valid generic names, there should be no consequential requirement for such junior synonyms to be removed from the collective groups they are used to represent.'

Starobogatov: 'Names generally used for collective groups must be adopted as such by special ruling of the Commission. Any other formulation leads to confusion.'

Vote 3

Heppell: 'I am against this proposal not only because most such names not treated as valid would be synonyms which should remain capable of being validated under Article 11d, but because it needlessly introduces an element of doubt. There are many cases of names about which it is impossible to be sure whether the author making reference to them treated them as valid or not. The most obvious examples are nomenclators and catalogues of collections, but there are other cases where authors included previously unavailable names of nominal species qualified by expressions of doubt as to their taxonomic status. It would be difficult to draw the line between conditional acceptance and provisional synonymy. When, however, an author refers to a previously unavailable name explicitly for historical purposes only I would be against accepting such a reference as an indication conferring availability upon the name. I would prefer the few doubtful cases to be brought to the Commission for a decision to this stringent proposal, the effects of which on stability are impossible to foresee. Practically all cases of availability through bibliographic reference involve specific rather than generic names, as, if a species *A-us b-us* were published with a bibliographic reference to its otherwise unavailable synonym *X-us y-us*, *X-us* would in any case be available through its direct association with *b-us* (Draft Code Article 67m).'

Vote 4

Heppell: 'According to my notes made at the time this provision was rejected by the Stensoffa Special Session as being inconsistent with the rule on names first published in synonymy (Article 11d). A name first published as a junior synonym in association with a bibliographic reference to an illustration may later have been removed from synonymy and used as a valid name, if the species illustrated proved to be distinct from that denoted by the senior synonym. Such names would all be at risk as a result of the proposed restriction, especially in view of the additional provision in a later draft of the present Code that "a name that is unavailable under any of the other provisions of this Chapter cannot be made available by adoption from a citation as a junior synonym". At present the status of an unavailable name was obviously changed by "mere citation" in synonymy, as it became potentially available for adoption as a valid name up till the end of 1960.'

Vote 5

Alvarado: 'This question is not clear to me.'

Vote 7

Trjapitzin: 'I fully agree, but it is necessary to add to Article 75c that "exceptional circumstances" must be clarified by a zoologist who designates a neotype.'

DECLARATION OF RESULT OF VOTE

The result of the vote on V.P.(80)15 is that all the points submitted for a vote received the two-thirds majority required under Article 16a(iv) of the Constitution. The publication of this report announces the intention of the Commission to incorporate the proposed amendments into the Code, in accordance with the authority given to it by the Division of Zoology of IUBS at Helsinki, and in words to be prepared by the Editorial Committee for the Commission's approval.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
6 October 1980

THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE: RESULT OF VOTE ON PROPOSALS FOR SUBSTANTIVE AMENDMENTS (FOURTH INSTALMENT) Z.N.(G.)185

By the Secretary, International Commission on Zoological Nomenclature

This report presents the result of the Commission's vote on the proposal to introduce "hapantotypes" into the Code. This proposal was put forward as a means of solving difficulties peculiar (at present) to workers in parasitic protozoology in typifying species with complex life cycles. It was published in *Bull. zool. Nom.* vol. 35, pp. 200–208 (May 1979), was reported to and approved by the Special Session of the Commission at Stensoffa, Sweden, and was reported to and approved by the Section on Zoological Nomenclature at Helsinki. The proposal had been endorsed by the International Commission on Protozoology and the International Congress of Parasitology.

A supporting paper by Garnham, Bray & Killick-Kendrick was published in *Bull. zool. Nom.* vol. 36, pp. 17–21, and a comment by Dr R.B. Williams in vol. 37, pp. 137–139. Professor Gordon Bennett (*Memorial University of Newfoundland*) contributed to the discussion by correspondence.

On 16 June 1980, the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper V.P.(80)17 on the proposal in the following form (paragraph B.27 of the Commission's report to the Section on Zoological Nomenclature at Helsinki):

Code Article	Commission Report to Section on Zoological Nomenclature at Helsinki, 1979, Section B
72	27. To provide that in extant species of protozoa, when a taxon cannot be differentiated by a single individual (or a single preparation – B26 above), a suite of several preserved preparations of directly related individuals representing different stages in the life cycle may be designated as a holotype or neotype, or selected as a lectotype. Such a group of preparations would have the status of such a type (not syntypes). The term hapantotype is proposed to describe this category. The change proposed to Article 72 is an extension of that in B26 above. The proposal results from consulta-

tion with the same bodies (*Bull. zool. Nom.* vol. 35: 200).

The following note on the historical background was sent out with the voting paper.

CALL FOR A VOTE ON THE INTRODUCTION OF "HAPANTOTYPES" IN THE CODE

The proposal by the Committee on Typification of Species of Protozoa (*Bull. zool. Nom.*, vol. 35, pp. 200–208) to introduce a new kind of type in the species group, termed a 'hapantotype', represents a radical new step in the progressive development of the Code. That proposal is now put to you for a vote. It is explained in this accompanying note.

It is a feature of the system of regulation of zoological nomenclature that infractions of its rules can neither be prevented by the Code nor punished by the Commission. The only pressure on zoologists to conform to the Code is peer pressure. When this is found to be ineffective, as in the present case, and when the Commission's help is sought, it is incumbent on us to see whether the infractions in question arise from a real problem or not; and, if so, to seek ways of solving or removing the problem.

In 1976 Professor P.C.C. Garnham (*U.K.*) and Professor Norman D. Levine (*U.S.A.*) drew my attention to the work of a group of German scientists on parasitic protozoa (for full references, see Frenkel, J.K. *et al.*, 1979, *Zeitschr. Parasitenk.*, vol. 58, pp. 115–139). The group consisted of veterinary surgeons and an electron microscopist, but included nobody with a specifically zoological, still less a taxonomic, qualification. Before they started work, it had been believed that species of *Sarcocystis* and related genera were homoxenous parasites, that is, that they infected only a single host species in which they passed through all the stages of their life cycle. The German group showed, by some brilliant research, elegantly conducted, that the species were heteroxenous, that is, they infected two host species, both of which were necessary to the completion of the life cycle of the parasite. *Sarcocystis* Lankester, 1882 was a well-known parasite of farm animals and man; and in those species there was never any sign of a sexual phase in the life cycle. The German workers showed that each species of *Sarcocystis* also infects a carnivorous host (fox, dog, raptorial bird) in which a sexual phase takes place. They also showed that not one species, *Sarcocystis hirsuta* Moulé, 1888, but three infect cattle, and that each has a different final host – cat, dog and man.

It was at this point that the German group met their nomenclatural problem. To which of the three species in the ox should the name *S. hirsuta* be given? Could any of the names regarded as synonyms of *S. hirsuta* (e.g. *S. fusiformis* Railliet, 1897; *S. blanchardi* Doflein, 1901) be used as valid names? The sheer size of the technical strides made by the German group rendered the original descriptions useless as a standard of reference, and none of the original preparations survived. They therefore decided to reject the old names altogether and to propose new ones. They named the three cattle species *S. bovicanis, S. bovifelis,* and *S. bovihominis,* and extended this practice to other species of *Sarcocystis* and to species of related genera (*Frenkelia, Hammondia,* etc.).

The procedure adopted by the German workers evoked two different reactions among their colleagues. Some pointed out that it was not only contrary to the letter of the Code, but also to its spirit in that long-established names for species of great economic importance were rejected in favour of junior synonyms, thus upsetting stability of nomenclature. Others, however, welcomed the new names, particularly those that combined elements of the names of the two hosts – though the apparent simplicity and directness of this procedure has been somewhat spoiled by the discovery that there is more than one ox-dog species of *Sarcocystis*. Since 1975, when these new names began to be proposed, their use has spread and is gaining ground, in spite of protests from distinguised protozoologists, who continued using the old names.

When the Commission's help was first sought, my reply was that the Code was there to be applied, and that its application in the present case was perfectly clear: the new replacement names were invalid; they must be rejected, and the old names restored to use. Having ascertained that no original material of the early-named species was known, I asked why the problem could not be solved by the use of neotypes. The answer was that no single individual would serve the purpose of a type, namely, to provide a standard of reference for the application of a name. It was explained to me that it is now necessary to examine all the stages of a life cycle before a species can be correctly recognised. Thus the Code, by insisting that a type in the species group can only be a single individual, actually prevented a solution to the problem being found within the framework of the Code.

It was at this point that I was able to discuss the problem personally with Professors Garnham and Levine (who wished to retain the old names) and the members of the German group at the International Congress of Protozoology in New York in July 1977; it was there that the International Commission on Protozoology set up the committee whose report is referred to in my first para-

graph. Meanwhile, Frenkel *et al.*, 1979, are asking the Commission to suppress the older names by the use of the plenary powers, on the grounds that they are *nomina dubia*. You are asked to read that paper, if possible, as well as the Committee's report and the enclosed separate of my reply to Frenkel *et al.* before voting.

After a year's intensive work by correspondence in the Committee, and after further direct discussions at the International Congress of Parasitology at Warsaw in 1978 and subsequently, I am personally wholly convinced that the problem arising from the work of the German group can only find a solution if the Code is amended so as to allow the species concerned to have as their types a suite of exhibits demonstrating the successive phases of the life cycle and, where appropriate, zymograms or isoenzyme prints. The number of species involved is not small, for it includes other parasitic protozoa, most notably the malarias, in addition to *Sarcocystis* and its allies. The gravity of the problem arises from the medical and veterinary importance of the species concerned. The Commission cannot condone the continuance of confusion and discord in the nomenclature of these animals.

At the same time, if the concept of hapantotypes is to be incorporated in the Code, the strictest controls must be imposed on its application. This view is strongly held by the parasitologists with whom I have discussed the subject. They see as clearly as anybody else that there is bound to be a risk of hapantotypes including material of more than one species, and that every precaution must be taken to ensure their purity. They also understand the radical nature of the proposal. In effect, it reveals a conflict between the classic concept of the objectivity of the unique type and the practical necessity to have types that serve some useful purpose as standards of reference. The Code, after all, admits that species may be based on syntypes; and a moment's reflection will show that in many groups, types are already of a multiple nature – not only in colonial animals, such as corals, polyzoa, graptolites, but also in vertebrates, where an entire body with all its parts, or an entire skeleton may be a type. The conceptual difficulty of accepting hapantotypes therefore does not seem to me very great. It is the fact that it must comprise physically independent cells which cannot be treated as syntypes that poses difficulty. I hope the fact that the German group is persisting in its course of action and that confusion and ill feeling are growing, will induce you to overcome that difficulty.

You are therefore asked to vote for or against adding a provision to Article 72 of the Code to allow that, in extant species of protozoa, if the name cannot be interpreted by reference to an animal or part of an animal, the type may be a number of directly related individuals, either:

[(1) in a single preparation (type slide); or]
(2) a suite of preparations representing differing stages in the life cycle (hapantotype).

(I have placed proposition (1) in brackets because it has already been accepted in V.P.(80)1, Point 10.)

The proposed Glossary definition of 'hapantotype' is: 'the suite of directly related individuals, including where necessary directly related evidence of their work, that together form an onomatophore [name-bearing type] in certain extant species of protozoa.'

OBJECTIONS RECEIVED

On 20 September 1979 Professor Holthuis wrote to express disquiet at some of the major changes to the Code accepted by the Stensoffa meeting. On hapantotypes he said:

'My objection to this concept is that until now a holotype is an objective standard of reference for a species, since it can, by definition, only be a single specimen. Both an individual and a clone cannot belong to more than one species. The moment a type series of different individuals, and a hapantotype is such a type series, is given the status of a holotype, the holotype concept loses its value as an objective standard.

'I cannot see what is wrong in designating a type series of various stages as syntypes. If they all belong to a single species they are as good a standard of comparison as when one calls them a holotype. If they do not belong to a single species then a lectotype can be chosen and the standard of the name can be preserved. My advice would be that we recognise lectosyntypes, i.e. that from a series of syntypes we could remove certain specimens that prove to belong to a different species from the rest, and still keep a series of lectosyntypes instead of a single lecto(holo)type. In this way one would still have the advantage of being able to use a (purified) type series.

'A hapantotype is far more vulnerable than a syntype series. If a hapantotype proves to represent more than one species, what do you do? Reject the whole thing and leave the species without a type? Or can you make a lectohapantotype? And what if two authors differ about the homogeneity of a hapantotype? Who is to decide how many stages have to be represented to make a hapantotype? Can you have hapantotypes of two individuals? I am afraid

that here too all the consequences of the introduction of the term hapantotype have not been thoroughly considered, and that in introducing the concept in such a hurried way we shall do the Commission and the Code more harm than good.'

I replied on 26 September 1979: 'In considering the difference between a hapantotype and a series of syntypes, have you considered the arguments advanced by Garnham *et al.* in *Bull. zool. Nom.* vol. 36, pp. 17–21? I agree that a hapantotype is vulnerable – that is the nature of the case – but you cannot deny the necessity for a suite of preparations showing successive stages of the life cycle. The nearest we can bring such a suite to the objective ideal is to insist that all the components of it are directly related. But the whole suite is indivisible and no single specimen or preparation can be designated from it as holotype or lectotype, because no single specimen can serve the function of a type.

'Steyskal has come up with the suggestion of the term "plethotype" which could be used to designate a provisional standard of reference for a protozoan species for which a hapantotype could not, or not certainly, be provided. But there might be a succession of plethotypes, each rejected in turn as a more nearly complete suite of stages was prepared, before a true hapantotype could be prepared. The point here is, as I am sure you can see, that you cannot go on breeding directly related individuals from one or more dead preparations; so each earlier plethotype would have to be rejected. This is, perhaps, a grave disadvantage.'

'Of course, if a hapantotype is found to contain material of more than one species, the whole thing must be rejected and a fresh start made with new material.'

On 11 October 1979, Professor Holthuis asked three questions:

'(1) How can you prove that organisms that pass through various stages in different hosts are directly related?

'(2) How can a type be an objective standard if you can reject the whole thing and start again with fresh material?

'(3) What happens if one zoologist claims that a hapantotype consists of specimens of the same species while another says that more than one species is involved? Does the species then have two holotypes? The original and the new hapantotypes? Who is to decide which is the correct one?'

I replied on 29 October:

'(1) Direct relationship through different hosts is demonstrated by cross-infection tests using laboratory-bred, sterile hosts.

'(2) A hapantotype would only provide an objective standard of reference if it consisted of true-bred parasites. If it proved to contain a mixture, then obviously it must be rejected and a fresh start must be made. It would not be possible, as it would with a series of syntypes, to choose a lectotype because the hapantotype would consist of dead, fixed cells from which it would be impossible to restart the life cycle. [The ground of argument on this point is obviously changed if living culture material in cryopreservation is admitted.]

'(3) Any author who claimed that a hapantotype represented more than one species would have to prove his case, by cross-infection tests, by isoenzyme analysis, or by some other means. If his case is accepted, then the hapantotype would have to be rejected and a fresh start made.'

On 16 November Professor Holthuis wrote, on these same points:

'(1) In that case I cannot see that many (or perhaps any) direct hapantotypes can be established if before describing a new species one has to do cross-infection tests on laboratory-bred sterile hosts, especially if the hosts are feral, not domestic, species.

'(2) This second requirement makes it even more impractical to establish hapantotypes, and it makes the fitness of a hapantotype as a standard even more hazardous.

'(3) You say that an author who thinks that a hapantotype is heterogeneous has to prove his case. As you remarked yourself, the hapantotype cells are dead and preserved; therefore it cannot be proved that the various stages in the hapantotype series are different species. But he can make it likely by raising from a stage of what he takes to be the same species as the corresponding stage in the hapantotype a series of stages that differ from the remaining stages in the hapantotype. You say "if the case is accepted", but by whom? By the Commission? But the question is taxonomic, so the Commission has no say in it. By the zoological public? How do you find this out? In most cases there will be a difference of opinion, which will clearly show the fact that this "type" is anything but an objective standard.'

Professor Holthuis also referred to a paper by Tadros & Laarman, 1976, *Acta Leidensia*, vol. 44, in which it is said that "the oocyst of eimeriid Coccidia is the most stable and reliable basic criterion for a workable scheme of classification" and

suggested that an oocyst might serve as a holotype.

It does not appear that I answered that letter, but it may be pointed out that Professor Holthuis has altered the ground of his objection by including in it the impracticality of preparing hapantotypes. On point (1) it is fair to point out that there is no compulsion on authors to designate types of new species. On the suitability of oocysts as holotypes, it is unfortunately a fact that no successful method of preserving them undistorted has yet been found.

On 8 January 1980 a meeting took place at the Imperial College Field Station at Ascot between, on the one hand, Professor Holthuis, Professor Bayer and the Secretary, and, on the other hand, Professor Garnham, Dr. Bray (members of the Committee on Typification of Protozoa) and Dr. Killick-Kendrick. The following note of the meeting was circulated. (Professor Holthuis's reservations are recorded below.)

'The discussion made it possible, first, to explain one of the main arguments in favour of hapantotypes: namely, that in a protozoan species with a complex life cycle, each stage taken individually might be indistinguishable from the corresponding stage in some other species, although the complete sequence of stages taken as a whole was peculiar to that species. Hence, any standard of reference that represented less than the complete life cycle would be incapable of serving the prime function of a type and would be useless. This point was accepted by Professor Holthuis.

'Professor Holthuis then raised the question of a hapantotype found to be incomplete. Here an analogy was drawn with imperfect or incomplete types among Metazoa; if necessary to the stability of nomenclature, an application could be addressed to the Commission for the setting aside of the imperfect type or hapantotype and the designation of a neotype by the use of the plenary powers.

'Professor Holthuis's main objection was to the multiple nature of a hapantotype. For him, the essence of the type principle when applied to species was the objective uniqueness of the type specimen. In the case of a species based on syntypes, if these were later thought to represent more than one species, it was possible to designate a unique lectotype to represent the species originally based on the syntypes. Although he accepted that this could be ineffective in protozoa with complex life cycles, he still sought reassurance on the problem of a hapantotype found to comprise representatives of more than one species. Although in some cases it might be enough to rely on the description and illustrations, this would not always be the case. He accepted the general point that it is impossible to require, as a matter of legislation, that descriptions or illustrations must satisfy certain predetermined criteria.

'The protozoologists pointed out that the likelihood of an author knowlingly basing a new species on composite material was equally small in protozoa and Metazoa. With modern techniques using laboratory-bred hosts, it was extremely unlikely that composite hapantotypes would in practice be prepared, although they agreed that the possibility could not be excluded. At the same time, they pointed out that even in a hapantotype found to be mixed, every stage of the species based on the hapantotype would be certainly represented, even if individuals of another species were also present. It would therefore be possible for a subsequent zoologist to restrict the original hapantotype by indicating the cells that he considered to belong to some other species, without thereby destroying the completeness of the hapantotype as a sequence of representatives of every stage in the life cycle. Professor Holthuis was satisfied with this argument.

'Lastly, it was agreed to propose the following revised Glossary definition of "hapantotype";

> "The suite of directly related individuals, including where necessary directly related evidence of their work, that represents successive stages in the life cycle of extant species of protozoa and that forms the name-bearing type (onomatophore) of such a species. If a hapantotype is found to be mixed or composite, it may be restricted, but no lectotype can be validly designated from among the specimens comprised in it. The term may be prefixed by "holo-", "lecto-", "neo-", "para-" or "syn-" as appropriate".'

Professor Holthuis wrote as follows on receiving this report (his letter was dated 25th January 1980):

'I do not remember having raised the question of "incomplete" hapantotypes. Does a hapantotype, in order to be "complete" have to consist of all stages of a species? It does not say so in the proposed definition. If this is not so, what then do you take to be a "complete" or an "incomplete" hapantotype? Is it "complete" when there are enough stages to make it possible to recognize the species? In some cases a single stage would suffice, and I would not call that a hapantotype. I will return to this point when dealing with definition.

'I fear that you misunderstood me on composite hapantotypes. If a hapantotype proves to consist of more than one species, the description and figures, whether or not they deal with only one of the species, is or are immaterial. The type material is and remains heterogeneous.

'What I meant was that if there is a homogeneous type series (syntypes or hapantotype), the fact that one of the specimens is made the lectotype does not make the species any less recognizable.

Consider a type series consisting of a specimen of each of stages A, B, C and D (if the species has four stages) and none of the stages is by itself characteristic of the species, but only a combination of some or all of them. If specimen C is selected the lectotype of the species, that single specimen does not characterize the species, but the fact that stages A, B and D belong to the same species does. To be of importance, these specimens do not have to belong to a hapantotype. If they become paralectotypes and if, but only if, they are conspecific with the lectotype, they play exactly the same role as they would if they were part of the hapantotype. The condition is that they are conspecific with the lectotype, but the same condition applies to a hapantotype. By the same token, an author can indicate a single specimen of a single stage as the holotype of a species and in his description describe all the stages of the species. In this way his species is recognizable, even if the single holotype in itself does not show enough characters to make the specific identity certain.

'In taxonomy there are lots of cases in which the type itself is not sufficient to recognize the species (e.g. where the type is damaged or lost, or where a non-morphological character such as sound, movement or locality, are essential) but where outside evidence (e.g. original or later descriptions, paratypes, etc.) is needed for the identification of the species.

'I agree with the definition, except for the last sentence. But it does not cover statements in the preceding paragraphs:

(a) the definition is such that any two or more stages of a species (even if it contains more than that number of stages) can be made into a hapantotype. There is no mention of a complete set of stages. Personally I do not see the need for a complete set, as (1) it might be possible to recognize the species from a few stages only, so that a complete set would be unnecessary, and (2) it might be difficult to ascertain that a set is complete, certainly with a new species, so that a hapantotype would be disqualified the moment an "intermediate" stage is discovered.

(b) what is meant by "directly related"? If it is the sequence "mother-daughter-granddaughter" and nothing else, it would be extremely difficult if not impossible to prove, and thus hapantotypes will become extremely difficult if not impossible to establish.

(c) in the definition it is said that a hapantotype may be divided or restricted. I fully agree to the broad sense in which this is expressed, for a hapantotype could then be restricted to a single specimen, which would be equil-

avent to a lectotype designation. However, from the previous paragraphs I get the impression that a hapantotype, even if restricted, has to represent all the stages of a species. Hence if one stage proves to be represented by a different species from the rest, the hapantotype is invalid.

(d) as to the last sentence of the definition, I see the hapantotype as a special kind of syntype (from which no lectotype should be selected, but which can be restricted if necessary), and just as there are no holo-, lecto-, syn- and para-syntypes, I would not recognize such categories for hapantotypes. The only thing that I would recognize would be a neohapantotype.

'I believe Dr. Bray objected to the restriction of the use of hapantotypes to the protozoa. I fully agree with him. If there is a need for hapantotypes in other groups, it seems pedantic of the Commission not to allow its use there. Nowhere in the Code is there, I believe, a rule that applies only to one taxonomic group. As different authors might interpret the limits of such a group in different ways (and taxonomic freedom cannot be limited by the Commission), this would mean that different nomenclatural rules might legally be used for the same taxon, depending on the taxonomic views of an author.'

[It seems to me that Professor Holthuis shows, in this letter, that he has not fully understood the grounds for the hapantotype proposal and that, in consequence, he falls into inconsistencies. In his last paragraph he seems to suggest extending its application, which is not in line with his previous arguments. I have discussed the proposal with zoologists working in various multi-stage animal groups, and in every case I have been told that species can be adequately represented by a single holotype taken at an appropriate stage (usually, but not invariably, the mature adult). I therefore believe that the concept should be applied only where an urgent need has been demonstrated, and that it is for interested zoologists in other groups to make their own case to the Commision for its extension.]

Professor Bayer wrote on 25 February 1980 as follows:

'I have to repeat my conviction that the Code must serve the sciences that need it, and therefore take into account the situation where a species cannot be characterised by a single specimen or single stage in a complex life history. We have got round this problem in macroinvertebrates for years without introduction of a new category of type-specimens, but it appears that in the case of protozoans with complex life cycles the situation is so difficult that new procedures are needed. Nevertheless, I consider it a

mistake to let new provisions established for such special cases diminish the effectiveness of the Code for use in other animal groups, so I concur with Dr. Holthuis's view while acknowledging the needs of researchers in parasitology. Given that the Code must not only retain its integrity for application in the vast majority of animal groups, but also fill the needs of scientists working with animals having a complex life cycle, the problem is to find an acceptable common ground. I think that this was achieved under your guidance at Ascot, and in my opinion there remain only matters of detail, largely semantic, to be clarified.

'If memory serves me aright, it was the potential heterogeneity of hapantotype preparations that drew the strongest objection from Dr. Holthuis, as noted in his letter of 25 January 1980. Evidently, heterogeneity remains possible even with the most refined laboratory techniques, although chances of its occurrence are slight. The provision that a hapantotype sequence can be culled of extraneous components without jeopardy to its status seems to circumvent this difficulty by leaving only conspecific organisms in the hapantotype array. However, if one of the stages of the hapantotype were found not to be conspecific (as opposed merely to being contaminated by cells that can be excluded from consideration), it was my understanding that the whole hapantotype would be deemed invalid, requiring a new sequence to be prepared. Do I recall correctly that this point was raised several times in the discussion? It seems to be a potentially sticky point and, other than in the possible term "neohapantotype", it is not addressed in the definition (and perhaps ought not to be; it is procedural and should be covered in the pertinent Article).

'It seems to me that the question regarding the expression "directly related individuals" raised by Dr. Holthuis is a semantic one. I sense that they are ontogenetically related but not necessarily "mother-daughter-granddaughter". Having been cultured in a presumably clean host from a presumably pure inoculate (or whatever they call it), all would be conspecific even if not derived from the same parent (clonal). Haven't the parasitologists some term that could serve in place of "directly related"?

'I have difficulty in determining how the combining term with prefixes "holo-", "lecto-", "para-" and "syn-" are to be used. As I read the definition, the hapantotype functions as a holotype. If the hapantotype serves as a holotype, I can't see the need for a term "holohapantotype". All of the stages could be on one slide, or they could be on separate slides (as I assume would often be the case in blood parasites), or in separate vials or bottles. One or all of these could contain contaminants excludable under the Code. Are the conspecific cells remaining after exclusion of the contam-

inants the "lectohapantotypes" and those excluded the "paralectohapantotypes" (God help us!)? I assume that it is also possible for the parasitologist to make several slides of each stage from the blood samples that he takes from the host. Are the several sets of all the stages the "synhapantotypes" and one of the sets the potential "lectohapantotype", the others then becoming the "paralectohapantotypes" (again God help us!)? To gain a different perspective on this question, assume a theoretical case of a scyphozoan requiring not only the adult medusa but also the scyphistoma and the ephyra for adequate characterization of the species. It would seem logical to consider one set of (reared?) scyphistoma/ephyra/medusa the hapantotype; additional sets would then be parahapantotypes. Obviously, if the establishing author had several sets but did not indicate one of them as the hapantotype, then the compound syn-, lecto-, and paralecto- terms would come into play, but I don't see the need for "holohapantotype". Whatever is intended, the meanings should be clarified.

'At first, I agreed with the opinion of Drs. Bray and Holthuis that the application of hapantotypes not be confined to protozoa. On further consideration, however, I have come around to the view that the hapantotype provision should, in daily practice, be limited to these special, probably unique, organisms. In those metazoans with complex life histories that include several dissimilar stages (and there are many: coelenterates, annelids of several sorts, insects, crustaceans, mollusks, echinoderms, even fishes, to mention the most obvious), the species usually can be characterised by a single stage; once the life cycle is worked out, all the stages are recognisable and identifiable. In some instances, one or more stages in the life cycle may be morphologically identical in several related species, and cannot be identified unless reared to some stage or condition that is morphologically unique. The hapantotype provision in no way alters the situation. It does not make it possible to identify unknowns, and it does not make the basic definition of a new species any more useful. If applied to certain crustaceans, for example, it might preclude describing a species until all stages are obtained by rearing, and it would preclude having a lectotype in the usual sense. I do not think anything is gained by it. Therefore, I would prefer to see hapantotypes restricted to those protozoan parasites where they are necessary for definition of the species, because opening them up to all animal groups would open up Pandora's Box in ways that we might well regret'.

Professor Holthuis wrote again in February 1980, but without adducing any fresh arguments.

The hapantotype proposal represents a large, new and radical step in the direction of adapting the Code to the needs of present-

day zoology. I therefore make no apology for providing this extensive documentation with the Voting Paper. The proposal as here presented is the fruit of work extending over three years, and I hope you will consider it worthy of careful consideration.

At the close of the voting period on 16 September 1980 the state of the voting was as follows:

Affirmative votes – fifteen (15) received in the following order: Melville, Nye, Corliss, Brinck, Hahn, Halvorsen, Willink, Kraus, Mroczkowski, Starobogatov, Trjapitzin, Vokes, Binder, Sabrosky, Ride

Negative Votes – Holthuis, Alvarado

Dupuis and Bayer abstained. No voting papers were returned by Bernardi, Habe, Heppell, Cogger, Tortonese and Welch.

The following comments were sent in by members of the Commission with their voting papers:

Hahn: 'I vote for the introduction of hapantotypes, but only if this sort of type is strictly confined to protozoa. In the comment of Dr Williams I see a tendency to extend it also to Cnidaria and perhaps other phyla. If the medusae of several related species are indistinguishable, as in *Obelia*, polyps may be selected as types (and vice versa).'

Vokes: 'Reluctantly.'

Willink: 'I fully agree with the clear, consistent and exhaustive explanations given by the Secretary to the different objections presented.'

Bayer: 'It is with regret that I abstain from voting in this case. I cannot vote against the principle involved, but neither can I vote for the complex terminology proposed for what is nothing but a set of syntypes. If adopted, "hapantotype" and its numerous possible polysyllabic combinations with lecto-, para-, etc. inevitably will bring the Code into ridicule and invite the contempt of many zoologists who already consider it too complex.'

DECLARATION OF RESULT OF VOTE

I hereby declare that the votes cast on V.P.(80)17 were cast as set out above, that the proposal contained in the voting paper has been duly adopted by the required two-thirds majority, and that the Commission will incorporate the proposed amendment into the Code, in accordance with the authority given to it by the Division of Zoology of IUBS at Helsinki, in words to be prepared by the Editorial Committee for the Commission's approval.

R.V. MELVILLE, *Secretary*
International Commission on Zoological Nomenclature, London, 7 Oct. 1980

THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE
RESULT OF VOTE ON PROPOSALS FOR SUBSTANTIVE AMENDMENTS (FIFTH INSTALMENT). Z.N.(S.)1973

By the Secretary, International Commission on Zoological Nomenclature

This report presents the result of the Commission's vote on the proposal to admit names proposed for ichnotaxa and parataxa to zoological nomenclature and to provide that such names do not compete in priority with names proposed for animals themselves. These proposals were first published in *Bull. zool. Nom.* vol. 36, pp. 11–14. They formed part of the Commission's report to the Section on Zoological Nomenclature of IUBS at Helsinki (vol. 36, pp. 211–212), part B, paras 1–4. They were approved by the Special Session of the Commission at Stensoffa, by the General Meeting of the Commission at Helsinki; they were also approved by the Section on Zoological Nomenclature and the Division of Zoology at Helsinki.

On 4 July 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)18 for or against the proposals presented in the following form:

Code Article	Commission Report to Section on Zoological Nomenclature at Helsinki, 1979, Section B
2 (Sixth Draft)	1. To provide that zoological nomenclature applies to the names of fossils of the work of animals or their traces (but not secretions), even though they have not been related to any organism in the animal kingdom that caused them. The term ichnotaxa is used to describe such entities. Article 1 of the Code provides for fossils of the work of animals and it is implicit in that Article that they must be regarded as representing taxonomic units of animals. Since some such fossils have never been related to the organism that have have caused them the Code should state explicitly that zoological nomenclature applies to their names (*Bull. zool. Nom.* vol. 36: 11–14).
24	2. To provide that names given specially to ichnotaxa do not compete in priority at genus-

group level with names given to nominal taxa of recognized organisms in the Animal Kingdom and that names given to ichnotaxa at the level of the genus group be treated as the names of collective groups. Names given specially to ichnotaxa would be treated at genus level in the same manner as collective groups and at any level, notwithstanding Art. 24 b (iii), they must not compete in priority with names given to taxa of the animal that made the work or traces (*Bull. zool. Nom.* vol. 36: 11–14)

3. To provide that zoological nomenclature applies to names given to fossils of fragmentary or detached parts of animals that are classified in artificial taxa as though they were genera and species. The term parataxa is used to describe such entities. At present Article 1 excludes from zoological nomenclature names that are not applied to "taxonomic units of animals known to occur in nature". Since dual nomenclatures exist in practice the matter would be made explicit in the Code (*Bull. zool. Nom.* vol. 36: 11–14).

4. To provide that names given specifically to parataxa do not compete in priority with names given to nominal taxa of recognized organisms in the Animal Kingdom. As in the case of ichnotaxa (2 above), and notwithstanding Art. 24 b (i), the names of parataxa would not compete in priority.

The following background paper was sent out with the voting paper. (Subsequent objections to the proposals concerning parataxa were received from workers in conodonts: Dr Bergström (*Geological Survey of Sweden*), Dr Lennart Jeppson (*University of Lund, Sweden*) and Professor Walter Sweet (*University of Ohio, Columbus, Ohio*) but these were either too late for circulation to the Commission, or presented difficulties that could not be resolved in time.)

V.P.(80)18 – APPENDIX

Background to, and comments on, the proposals

Paragraphs 1 and 2. Ichnotaxa (trace fossils)

EC: recommended
Stensoffa: recommended with one contrary vote

The proposals now before the Commission originated in an application by Professor Otto Kraus and the late Professor Walther Häntzschel for the regulation of names given to trace fossils after 1930. This was published, together with a number of related comments, in *Bull. zool. Nom.* vol. 29, pp. 137–141, 1972. Two later comments in support (by Professor E. Voigt and Dr. Ellis Yochelson) and one in opposition (by the late Dr. Lemche) were published in *Bull. zool. Nom.* vol. 30, pp. 69–71. The underlying cause for this application was that names for trace fossils are available under the Code if published before 1931, but not if published after 1930. Thus, in Part W of the Treatise on Invertebrate Paleontology (Second Edition), 1975, roughly 118 generic names are available and about 124 are not, among those treated as 'valid'. Some action is clearly called for to rectify this anomaly, which arises from a decision of the Paris (1948) Congress (*Bull zool. Nom.* vol. 4, p. 255) to treat a description of the work of an animal as an indication for the purposes of the Code.

The rapid and extensive growth of such geological disciplines as sedimentology and environmental geology has led to a corresponding growth in the study of trace fossils as indicators of environmental conditions and changes in them. Although some of the earliest workers named what they took to be traces of plants, nearly all are now, on good analogical grounds, ascribed to animals (and there is, of course, no intention of applying our Code to organisms now considered not to be animals). There is an undeniable need for a set of scientific names for use in communicating ideas about these trace fossils, and for a set of rules to govern those names.

Until 1972, most workers in this field ignored the Paris ruling referred to and applied the zoological Code in naming trace fossils – with one important reservation: a number of genera of trace fossils was described without any included species, and hence without any originally designated type species (indeed, many genera are without included species to this day). Such names are doubly unavailable.

An important – and, for zoologists, a disturbing – development occurred in 1973. Sarjeant & Kennedy, *Canadian J. Earth Sci.*, vol. 10, pp. 460–475, published a draft code of nomenclature for trace fossils that was modelled closely on the International Code of Botanical Nomenclature (Professor Sarjeant is a palynologist), because that code was found to be more adaptable and receptive than ours. Unfortunately, this draft code proposed to introduce into the nomenclature of elements of the animal kingdom certain nomenclatural concepts that are quite foreign to our Code. Its formal adoption was proposed to the International Union of Geological Sciences at the 25th International Geological Congress,

Sydney, 1976; but the Secretary-General of IUGS assured me that no final decision on it would be taken without consultation and discussion with IUBS.

In the event, the Sarjeant & Kennedy proposals did not find favour among ichnologists as a whole, most of whom continued to treat their objects of study as elements of the animal kingdom. In 1977 I was approached by Dr. Paul Basan, editor of the *Ichnology Newsletter*, with a request for news of progress with the original Kraus and Häntzschel application to the Commission.

At the time all my spare energy was taken up with the work of the Committee on Typification of Species of Protozoa, and it was not until July 1978 that I was able to present the subject to the Editorial Committee, during one of its meetings in London. The results of that meeting, incorporating the matters on which you are now asked to vote, were published in *Bull. zool. Nom.* vol. 36, pp. 11–14, July 1979. Put in simple terms, the Editorial Committee saw no need for a separate code of 'ichnonomenclature'. All that was necessary to adapt our Code to the requirements of ichnologists was to provide (1) that names given to trace fossils as such should be available regardless of date, but that they should not compete in priority with names given to the causative organisms, and (2) that the provisions of Article 13b should not apply to them. These proposals were reported to, and warmly welcomed by, Dr. Basan (*Palaeogeogr. Palaeoclimatol., Palaeoecol.* vol. 28 (1–2), September 1979). (He did not approve either of the publication of the Sarjeant & Kennedy draft code alongside his paper, or of that code itself.)

Meanwhile, in November 1979, I received an enquiry from Dr. Richard Bromley (*Copenhagen University*) on the state of the Commission's examination of this problem. This resulted in a joint paper by him and Dr. F. Fuersich in *Bull. zool. Nom.* vol. 37, pp. 6–10. This paper demonstrated a need for the extension of the proposed provisions to cover traces of extant animals. However, the Special Meeting of the Commission at Stensoffa decided not to recommend inclusion of a provision governing all names based on the work of animals regardless of date. The Editorial Committee's proposals were also welcomed by Professor Anders Martinsson, Chairman of the International Commission on Stratigraphy and of the International Palaeontological Association.

In February 1980 I received a letter from Dr. W. Struve (*Forschungsinstitut Senckenberg, Frankfurt, BRD*). I find it difficult to decide whether this letter really attacks the proposals as strongly as it appears to do, for in some passages it seems to accept them. In fairness to Dr. Struve I reproduce his letter in full, so that members of the Commission may make up their own minds:

'In the course of years, nomenclature apparently estranged so much from its original intention that even a loyalist is going to lose inclination to open the Code book. Therefore, the ideas of enriching the International Code of Zoological Nomenclature by introducing Parataxonomy and Paranomenclature and Ichnotaxonomy and Ichnonomenclature are alarming and point out the short memory and fast-moving time in science. As I remember, about a quarter of a century ago the scientists of this house (among them commissioners resp. ex-commissioners) were relieved that the "para"-ideas had sunk into oblivion and that a schisma breaking up through nomenclature had been avoided. It is deplorable that valuable time has to be detracted from actual research in order to be spent for this matter again.

'In principle, everybody is allowed to classify everything he wants and to mark or name every unit and element of his system as he likes – by pictography, by letters, by numbers or even by actual words or "names". And everybody may publish and distribute these achievements freely, too.

'A large group of scientists has agreed by good reasons to establish a(n artificial) system of order and naming, called the "Linnean" one and being subject to distinct rules.

'The actual problem is now, to prevent the para-taxonomies and -nomenclatures from entering the Linnean System and the Linnean Nomenclature. Once introduced in the Code and becoming reputable, the "paras" would spread like metastases.

'That means that the International Code of Zoological Nomenclature has to stay restricted to all Taxa and Names that are subject to the Linnean System and the Linnean way of Nomenclature as intended by the first author traditionally or maybe expressis verbis in future. It is irrelevant in this connection whether the Linnean System is a natural or artificial one.

'The introduction of a new taxon and a new name must not be made dependent from

- the state of preservation and percentage of body available for research,
- the sex,
- the ontogenetic stage of the respective object, etc.

'Since there are actual differences between recent and fossil documents, non-obedience of those principles will provoke a schisma between zoological and palaeozoological nomenclature.

'My opinion is substantiated as follows:

(1) Completeness of material: Quite generally, fossil material is incomplete or fragmentary. The possibility of discrimination and determination of fossils does not depend upon percentage of available body or skeleton parts but

from systematic value of the documents which is a matter of knowledge, experience and intuition. The systematics of fossil mammals is based largely on teeth (and exceptionally by more complete dentitions). A substantial group of Carboniferous trilobites can be defined and determined the best and the easiest by means of their genal spines (BRAUCKMANN, 1978), being with about 2% of hard parts much more than a mammal tooth, but the remaining 98% of the carapace being largely the nice carrier of the small decisive "rest".

(2) Sex: Even in case of complete knowledge about sexes in the respective recent groups it may be difficult to identify males and females among their fossil predecessors. In several important fossil groups there is a discussion but no compelling knowledge about sexual dimorphism (e.g., trilobites, brachiopods).

(3) Ontogenetic stage: The eminent importance of early ontogenetic stages in taxonomy and systematics of several fossil groups is well known since long, e.g. by the embryonic chambers of ammonoids and dacryoconarids. Many ammonoids are characterized by the details of early coils, others by the properties of late adult to gerontic coils. The extraordinary importance of protaspid and meraspid stages of ontogeny for discrimination and determination of Middle Cambrian trilobite species has been pointed out convincingly by ŠNAJDR (1958).

(4) Characters of soft body and of body fluids being so important for several recent animal groups are (with almost no exception) unknown from fossil animals.

'I believe that the unity of zoological and palaeozoological nomenclature is not only desirable but even absolutely necessary. This unity can only be maintained if the decision upon the possibility of discrimination and the reasoning for the introduction of a name is reserved for the sound discernment and the risk of the specialist.

'A special comment seems necessary concerning "ichnotaxa" and nomenclature of those. I see no reason to treat them separate from ordinary taxonomy and nomenclature:

'In palaeontology there is no sharp boundary between "body fossils" and "trace-fossils". The difference is especially spoiled between external casts of body fossils and repose imprints (Cubichnia). As the most famous example, I name the Pre- or Eocambrian *Xenusion auerswaldae* which is included promptly and legitimately as well in "Protarthropoda" (vol. *O*) as in "Trace Fossils" (vol. *W*) of the "Treatise on Invertebrate Paleontology"

[but not in the Second Edition, 1975, of Vol.W. R.V.M.]

'This problematics touches especially the exciting chapter of Pre-cambrian life on which both palaeontologists and zoologists will have great interest to discuss and to use one nomenclature only. Special attention is drawn to the large group of so-called "worms" and worm-like trace fossils which in part are documents of highbred "palaeopsychic" efficiency and will allow better definitions of fossils especially by consequent application of computer analysis than does a study of a cast of some kind of segmented or non-segmented hose-like body.

'I believe it is no tragedy if an extinct animal bears different names both for its body and for its manifestation of life, or even if the animal gets the name of its trace because of the law of priority. In my opinion the frequency of (temporary!) different names for body parts, sexes, larvae, ecological forms and traces is generally over-dramatized. Synonymy of this provenience has a share of less than 5%, probably less than 1%; such a small share is praiseworthy of a science as palaeontology displaying an explosive development in exploring extremely difficult and imperfect documents.

'As experience shows, the greatest share of "synonymies" in palaeozoology and in part also in zoology is caused by quite different reasons:

- different scientific approach to taxonomic valuation of species, subspecies and formae;
- overlooking of pre-published literature;
- shifting of meaning of species or subspecies contents by wrong determination.

'Furthermore, the actual dangers for taxonomy and nomenclature threaten from the great inadequateness of efforts to clear up the avalanche of knowledge in a simple, intelligible and reproducible way.

'One important approach towards improvement of this situation will be to cut down the code of nomenclature to simple and clear prescriptions and to avoid any load which might be likely to shunt nomenclature from a handy tool of scientific communication to an end in itself.

'In our institution is striven since many decades to obey the code of nomenclature strictly. However, it becomes more and more difficult to convince scientists and authors of the advantages of an unambiguous nomenclature if such praised qualities vanish under a tangle of confusing and turgid regulations, exceptions, deadlines etc.. It should be emphasized that the Commission bears a high responsibility for enabling all responsible editorial staffs of relevant literature to work economically.

'Therefore, I hope that the present Commission on Zoological Nomenclature will avoid to add new burden to the Code but engrave itself on the annals of nomenclature to have provided zoology and palaeontology with the simplest, clearest and shortest nomenclature ever made.'

Dr. Struve's letter covers both ichnotaxonomy and parataxonomy, considered in the next section of this report. In reply I pointed out that the degree of complexity of the Code merely reflected the complex behaviour of zoologists. I said that it is not a question of preventing parataxonomies and paranomenclatures from entering the Linnean system; they were already there before the 1905 *Règles* were written. Our business is to find a way of regulating these parallel nomenclatures (which reflect parallel taxonomies) without causing chaos.

Dr. Kerzhner (*Academy of Sciences, Leningrad*) also showed a misunderstanding of the purpose of the Editorial Committee's proposals and thought that ichnotaxa and parataxa could be provided for by a single rule. He thought it would be better to proceed case by case, by Opinions, in deciding what fragments or traces of what animals do not compete in priority with names purporting to be based on the animals themselves, and that an Official List of Parataxa should thus be built up. I fear that he grossly underestimates the extra work that this would inflict on the Commission's already overstretched resources.

Dr. Holthuis (July 1979) expressed disquiet at the introduction of proposals concerning ichnotaxa and parataxa after the publication of the Sixth Draft of the Third Edition of the Code. As has been seen, however, those most concerned with ichnotaxa welcomed these proposals; and it will be seen that the volume of comment on parataxa (though revealing widespread misunderstanding) shows that those concerned were well aware of the proposals published in July 1979.

Dr. Holthuis (June 1980) expressed his opposition to the introduction of the concepts of parataxa and ichnotaxa into the Code as follows:

'(1) The Editorial Committee published the proposal to introduce these concepts into the Code as late as July 1979, i.e., more than 1½ years after the draft for the third edition of the Code had been presented for comment to zoologists (in November 1977). Neither concept was mentioned in the draft and the 1979 proposal could not be considered a comment on any part of the draft: it was adding entirely new matter to it. Zoologists who bought the draft (both before and after July 1979) were not automatically informed that new fundamental additions to the Code had been proposed, even less what these additions amounted to.

Only those, unfortunately very few, zoologists who regularly consulted the Bulletin of Zoological Nomenclature would know of them. Although the procedure adopted in handling this matter is fully legal, it might give the impression of not being quite ethical, the more so as, in order to enable the insertion of the new concepts into the new Code by 1980, the whole procedure was rushed and voting is taking place after the shortest possible interval. That interval in this very fundamental issue is far shorter than those that as a rule occur in the most simple applications to the Commission.

'(2) The term parataxa, although not mentioned in the circulated draft of the new Code, was not new to nomenclature. In the well-known (1957–1958) Bradley draft of the first edition of the present Code, the introduction of this term had also been proposed. However, after long (and often heated) discussions during the Colloquium on Nomenclature of the XV International Congress of Zoology at London (1958), at which numerous zoologists were present, the inclusion of the concept parataxa into the Code was rejected with a substantial majority. The Commission should avoid that zoologists will get the impression that an effort is made now to get this item, which was definitely rejected in 1958, into the Code through a back door, something which in no way can be the intention of the Editorial Committee or the Commission.

'(3) The introduction of a special nomenclature for parataxa and one for ichnotaxa, together with the existing one for collective groups, makes for three nomenclatures parallel with the normal rules. Comparing the three, one finds that nomenclaturally the generic names on the parataxa-, ichnotaxa- and collective group-levels are fully identical: in all three cases the generic names are to be treated as normal generic names, except for the fact that they do not compete for Priority with other generic names. While in ichnotaxa and collective groups the specific names are not different at all from normal specific names, in parataxa the specific names do not compete for Priority with other specific names. This means that the generic names of all three categories and the specific names of parataxa are provisional names that can be used as long as the life stage has not been identified with the adult stage (in collective groups), the trace has not been linked to the causative organism (in ichnotaxa), or the assemblage of parts has not been linked to the complete animal (in parataxa). As soon as the links are established the provisional names have to give way to the names of the adult, causative or complete organisms. It would be sufficient to use a single term for this type of provisional name (e.g., collective genus name and collective species name), regardless of whether it

is used for (1) a stage in the life cycle, (2) a trace, (3) an assemblage of parts that cannot (or not yet) be definitely assigned to a natural taxon, or (4) any other artifical taxon. To decide whether a certain taxon needs a provisional name is the task of the taxonomist, not that of the Code. According to the Preamble the Code may not "restrict the freedom of taxonomic thought or action", it can allow the use of such provisional names and define them nomenclaturally.

'(4) The present problem is too complicated to be decided upon without a more careful consideration of its various aspects, and a decision at this moment seems ill-justified.'

Dr. Holthuis's final objection may be answered as follows: it is not at all the purpose of the Editorial Committee's proposals to decide whether a certain taxon is to be given a name in one nomenclature or another; once a taxonomist has taken the relevant decision, it is for the Code to provide an orderly means whereby he can communicate that decision within the framework of the Code. It is, moreover, unrealistic to suppose that names given to ichnotaxa and parataxa are provisional. In nearly all cases their permanence is as certain as anything can be in the world of nomenclature.

Paragraphs 3 and 4. Parataxonomy and paranomenclature

The problem that is addressed here is, as already mentioned, the long-continued existence of parallel taxonomies in certain animal groups, reflected in parallel nomenclatures. Whenever a taxon in one of these taxonomies (at species-group, genus-group or family-group level) is matched with one or several taxa in the other taxonomy, Article 24b of the existing Code comes into play: i.e., one of the names must be rejected in favour of the other. This causes no problem when a soundly-based one-to-one match is established between one taxon in one taxonomy and one taxon in the other; the Law of Priority can be applied and, if this causes confusion, recourse may be had to the Commission. But this is a very unusual event, even if it has ever occurred. It is much more common for a single parataxon to match with a number of 'natural' taxa (i.e., taxa based on the animals themselves). If, in such a situation, the parataxon was named first, then *all* the names of the taxa based on the animals themselves become junior synonyms. But when the latter (if species) belong in different genera, or (if genera) in different families, the consequence is nomenclatural chaos. The problem goes further than that, however: the Code, by forcing the name of the parataxon as the valid name of a number of taxonomically separated animal-based taxa, constricts taxonomic freedom and thus exceeds its own authority. These points do not appear to have been made in the earlier discussions of this subject,

but it is hoped that they will show the urgency of the problem.

The following are examples of groups in which parallel taxonomies and nomenclature exist:

Class	Order	Comment
Gastropoda		Fossils are classified only on the shell. Extant forms are classified on the radula, genitalia and operculum as well as the shell. Assigning fossil forms to taxa based on extant types thus entails a measure of speculation.
Cephalopoda	Ammonoidea	Aptychi (whether opercular or radular in function) can be classified in genera and species that do not match the genera and species based on phragmocones. In cases of supposed sexual dimorphism, taxa of presumed females (macroconchs) do not always correspond to taxa of presumed males (microconchs) below generic level.
Holothuroidea		Only detached spicules are known fossil. The genera and species in which these are classified bear no relation to those of the extant forms.
Pisces	Selachii Batoidea	Only the teeth are known fossil. Their classification does not match that of the extant forms, based on body form, number of vertebrae, etc.

These dual taxonomies reflect pragmatic necessities imposed by the nature of the evidence with which zoologists and palaeontologists have to deal (Dr. Struve's 'difficult documents'). The removal of those necessities by improved research is an ideal which can be approached only asymptotically. So long as they persist, the dual taxonomies will persist, and so will the corresponding nomenclatures. In the conodonts, for example, there is a slow movement towards an apparatus-based classification. But conodont workers do not seem to understand that the valid binomen for an apparatus-species must combine the oldest element-based generic name with the oldest element-based epithet, and that this produces names that represent no coherent taxonomic concepts.

The Editorial Committee's proposal – essentially that these parallel nomenclatures should not compete with each other for the

purposes of the Law of Priority – restores to taxonomists the freedom that the rigid application of Article 24b would remove. The decision as to when a parallel taxonomy is a pragmatic necessity in a given group is still left to the scientists concerned, as is the allocation of taxa between those taxonomies and their gradual reduction to one.

Comments on the Committee's proposals have mostly expressed disquiet at the possible introduction of a general licence to set up separate systems of nomenclature for any fragment of an animal. This is, of course, not the Committee's intention. Such disquiet can be set at rest by careful drafting, and the Committee will pay special attention to this.

Those who have expressed disquiet of this sort include Professor G. Hahn, Dr. Heinz Malz (*Forschungsinstitut Senckenberg, Frankfurt, BRD*), Dr. R.W. Huddleston (*Chevron Oil Field Research Co., La Habra, California*) (in press, with my reply, in *Bull. zool. Nom.* vol 37; copies of the proofs are enclosed), Dr. Jan Bergström (*Sveriges Geologiska Undersökning*) and Dr. Lennart Jeppson (*University of Lund, Sweden*). I have replied to all these correspondents explaining the Committee's proposals more fully, and none has sought to prolong the discussion.

The matter is therefore now referred to the Commission for a vote, on the understanding that the final drafting remains a matter for the Editorial Committee.

On 11 September 1980 (when 13 votes had already been returned) Dr C.W. Sabrosky sent the following letter to all members of the Commission:

'Ichnotaxa and parataxa

'The proposed rules on these two items have been before us for some time, and you may already have voted. However, recent discussions with paleontologists here in Washington and the receipt of the signed communication from the Pander group (conodont specialists) have convinced me that we have not fully explored the attitude of paleontologists on the subjects. I was astonished at the depth and intensity of opposition, especially to parataxa, and I have concluded that it would be wise not to adopt that proposal at this time but to consider more thoroughly what is involved.

'I know that Secretary Melville, himself a paleontologist, warmly and strongly supports the proposals. But I find paleontologists of equal repute strongly and even bitterly opposed to them. As a bystander who has no need or use for either parataxa or ichnotaxa, I am puzzled, and I am unwilling to proceed until I am sure that overwhelming or at least majority opinion among paleontologists is in favour of the steps. I would not wish to find the Commission storming the enemy's fortress only to look around and

find only sparse troops behind us.

'It does seem to me that ichnotaxa and parataxa present different situations, and I will discuss them separately.

'Ichnotaxa

'It is clear in the disucssion that the real problem of the ichnologists lies in the rule that names based on the work of animals are unavailable after 1930. Remove this, as we have done by removing it from indications, and their major problem is solved. I would treat the genus-group names as collective-group names, as most probably are. However, I would just as soon apply priority at the species-group level. It is rare that there will be any complication.

'I was impressed by the three comments by Martinsson, Teichert and Frey (*Bull. zool. Nom.* vol. 29, pp. 140–141). I therefore approve paragraphs 1 and 2 of V.P.(80)18, except for species-group names being exempted from priority.

'Parataxa

'Re parataxa, I received, both directly and through the Secretary, the statement from the Pander group, as well as telephone calls from Professor Sweet of Ohio State University and Dr Repetski, U.S. Geological Survey. Dr Repetski, at my request, arranged a discussion meeting and I subsequently had long discussions in depth with paleontologists Ellis Yochelson and Porter Kier. I was astonished at the strong feeling against the proposal and the – to me – cogent arguments that were advanced. Most of these were along the lines of Struve and Holthuis (chiefly his point 3). They pooh-poohed the idea of chaos. They believed that approval of dual nomenclature would cause neglect of, and even inhibit, solid zoological studies. Conodonts were used as an example of a group in which advancing knowledge had overtaken earlier and vaguer knowledge and the group is being put on an ever firmer footing, without resort to parataxa. Most hold that individual and unidentifiable parts, such as holothurian spicules or crinoid columnals, should not be named at all, but referred to, if needed, by some other system.

'I believe that the concept and practice of collective groups can also be extended to parataxa. The difference is, of course, that species in the collective groups of parasitologists can be identified, and ultimately their life cycles worked out and the specific name taken into the regular zoological classification, either as a valid name or as a synonym. Presumably this will seldom be possible for the "species" of parataxa, which may have come from various species of animals. But the genera can be considered as collective groups.

'I am not sure that Article 1 can be correctly said to exclude parataxa. It depends how one reads "names given to taxonomic

units of animals known to occur in nature", the animals or the taxa (taxonomic units)? If parataxa are considered artificial taxa that do not occur in nature, then how about collective groups such as *Cercaria*? and how about genera that are regarded as probably polyphyletic? Anyway, are not generic and family names, etc. merely names for our concepts for what occurs in nature? I would rather interpret Article 1 to say that we deal with names of taxa, the taxa being arrangements of *animals that occur in nature*, whether the taxa are artificial or natural. It seems likely that in most cases outside of conodonts, the names would remain as collective groups, but if, as in the conodonts, there is some day a zoological *dénouement* of the problem, then let priority apply. I predict that the problems will be few.

'I am therefore persuaded to vote against parataxa as presently proposed, on the ground that Article 1 already can include them and priority should apply. I would have no objection to adding such phrases in Article 1 as "including parataxa" or "including ichnotaxa" for clarity and precision.'

The communication from the Pander Society mentioned by Dr Sabrosky had already been circulated to all members of the Commission. It read:

'The undersigned members of the Pander Society, the international organisation of conodont workers, representing 25 countries, are meeting in Vienna and Prague from 4 to 9 August 1980. We have carefully considered the text of the subject amendments. This was the first opportunity since their publication to discuss the amendments in an international forum. We unequivocally reject these amendments to the Code and urge you in the strongest possible terms to vote against them.

'The purpose of formal zoological nomenclature as expressed in the International Code (1961, 1964) is to promote stability and enhance precision of scientific communication. This is done by an almost absolute adherence to the principle of priority. As a nomenclature for parataxa would legalise a dual system of names, paranomenclature is antithetical to the purpose of the Code.

'Additionally, almost all fossils may be considered parataxa, because preservation of the entire organism is an extremely rare phenomenon. There is a complete gradation from (1) indeterminate isolated skeletal parts (e.g. crinoid stems, certain scolecodont maxillae, certain conodont ramiform elements) to (2) more complete associations (polychaete jaw apparatuses, of which hundreds of articulated specimens have been discovered in the last twenty years, and similar numbers of *in situ* conodont multielement associations on bedding planes and in fused clusters) to (3) preservation of the complete skeleton or shell. In almost all instances, soft

parts are lacking. Thus, for example, a complete ammonoid shell (phragmocone) represents in reality a parataxon. Accordingly, it is extremely difficult if not impossible to differentiate between fossil taxa and parataxa. We are convinced that the adoption of the amendments concerning parataxa would undermine the stability of nomenclature of all fossil animal groups.

'Prior to the mid-1960's conodonts were considered in effect as parataxa (or form taxa), as almost all conodont workers dealt exclusively with isolated skeletal elements. Since that time, however, tremendous progress has been achieved in basing taxonomy on reconstructions of the conodont apparatus, which represents the entire skeleton. In the resulting nomenclature, strict application of the International Code (especially Articles 23 and 24) has been followed. This taxonomy and nomenclature is now being used in the Treatise on Invertebrate Paleontology (1980, in press), in the Catalogue of Conodonts (vols 1 to 3, 1973–1977; vol. 4 is in preparation), and by virtually all recent conodont workers. This contradicts point no. 5 in the discussion of Paranomenclature (*Bull. zool. Nom.* vol. 36, p. 12, 1979). The Pander Society has held several meetings at which the adoption of the above-mentioned procedure was advocated to promote stability of nomenclature. General agreement has been reached since the 1971 meeting in Germany to follow Articles 23 and especially 24. The re-introduction of parataxonomy into conodont taxonomy would destroy all of the progress towards a natural taxonomy. The negative effects of these amendments will similarly produce nomenclatural chaos among other groups of fossils.

'We, the undersigned members of the Pander Society meeting in Vienna and Prague and representing conodont workers from 25 countries, emphatically support the position expressed in this letter.'

'The above letter bore the following signatures:

Australia	Dr Ruth Mawson	*China (People's*	Dr C.Y. Wang
	Mr Stephen Carey	*Republic)*	
Austria	Dr M.F. Buchrothner	*Czechoslovakia*	Dr R. Mock
	Dr Fritz Ebert		Dr J. Papsova
	Dr F. Neubauer	*France*	Dr C. Cygan
	Dr H.P. Schönlaub		Dr M.F. Perret
Belgium	Dr Pierre Bultynck	*Germany (Federal*	Prof. Dr H. Beckmann
	Dr R. Dreesen	*Republic)*	Dr H. Reguadt
	Dr E. Houlleberghs		Dr D. Stoppel
Bulgaria	Dr K. Budurov		Dr K. Weddige
Canada	Prof. C.R. Barnes		Prof. Dr W. Ziegler
	Dr P.H. von Bitter	*Germany*	Dr H. Kozur
	Prof. Brian Chatterton	*(Democratic*	
	Prof. Lars Fahraeus	*Republic)*	
	Dr David Kennedy	*Hungary*	Dr S. Kovacs

Iran	Dr B. Hamdi	*United Kingdom*	Dr R. Aldridge
Israel	Dr F. Hirsch		Dr R. Austin
Italy	Miss G. Bagnoli		Dr M.J. Reynolds
	Miss M.C. Perri	*U.S.A.*	Prof. S. Bergström
	Miss C. Spalletta		Dr J. Baesemann
	Prof. G.B. Vai		Mr T.R. Carr
Japan	Prof. H. Igo		Prof. David Clark
	Prof. T. Koike		Prof. R.L. Ethington
	Dr Y. Kuwano		Prof. Gilbert Klapper
	Dr A. Shuko		Dr H.R. Lane
Libya	Dr A.W. Ghaziry		Prof. J. Miller
Netherlands	Dr M. v.d. Boogaard		Prof. G. Merrill
Poland	Dr J. Dzik		Prof. M.A. Murphy
	Dr W. Bednarczyk		Dr John Repetski
	Dr H. Szaniawski		Dr C.A. Sandberg
Romania	Dr E. Mirauta		Prof. N. Savage
South Korea	Prof. H.Y. Lee		Prof. W. Sweet
Spain	Dr C.A. Mendez	*Yugoslavia*	Miss T. Kolar
	Dr R. Menéndez		Prof. A. Ramovs
Sweden	Dr L. Jeppson		Dr M. Sudar
	Dr A. Löfgren		

The following non-members of the Pander Society, but interested palaeontologists studying other fossils, have also signed:

Australia	Prof. J. Talent
Canada	Prof. P. Lespérance
Czechoslovakia	Dr Ivo Chlupac

The Pander Society's communication was circulated to the members of the Commission with the following note from the Secretary:

'First, I admit that my knowledge of the taxonomic progress of conodont studies was out of date when I wrote the report in *Bull. zool. Nom.* vol. 36 (paragraph 5 on p. 12 is referred to). It is clear that the two parallel taxonomies that formerly existed in conodonts are gradually being reduced to one over most, if not quite all of the field.

'Secondly, it is still true that the nature and taxonomic position of the conodont-bearing animal is unknown. It cannot be stated as a certainty that a conodont apparatus represents a whole animal, or only a detached organ of a whole animal.

'Thirdly, the argument that all fossils are parataxa is a piece of casuistry. In practice, the "complete gradation" mentioned is not found. There are fossils – the vast majority – that can be confidently taken to represent an animal as such; and there are others – not a few – that can with equal confidence be said not to represent the same taxa as those in which the fossils of the

former group can be classified. Yet the fossils in this latter group can be classified in genera and species of their own, that do not correspond, one-for-one, with the genera and species of fossils taken to represent the animals themselves. These parallel taxonomies (some of which are much older than the first, 1905, *Règles internationales de nomenclature zoologique*) are set up to meet a practical need for communication, and they will continue to do so as long as the need exists. Article 24 could be used to destroy the nomenclatures in which these taxonomies are expressed by applying the Law of Priority case by case. In such groups as ammonite phragmocones and aptychi; nautiloid phragmocones and rhyncholites; fossil holothurian spiculea and extant holothurians; fossil and extant elasmobranch fishes; such use of Article 24 would not only produce chaos in both paranomenclature and "ortho-nomenclature" – it would also inhibit communication between workers on the parataxa in the only framework that makes practical sense for them, because there would no longer be a nomenclature in which they could express the only taxonomy that they could use. Thus the instrument set up to facilitate communication among zoologists would be put to a perverse and contrary use.

'If the conodont workers do not need two taxonomies and two nomenclatures, nobody can compel them to use them. Workers in other groups have such needs.'

DECISION OF THE COMMISSION

On 4 July 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)18 for or against the proposals set out in paragraphs 1–4, Section B. of the Commission's report to Section on Zoological Nomenclature as set out in *Bull. zool. Nom.* vol. 36, pp. 211–212. At the close of the voting period on 4 October, 1980 the state of the voting was as follows:

Vote 1

Affirmative votes – fifteen (15) received in the following order: Corliss, Halvorsen, Welch, Holthuis, Kraus, Mroczkowski, Vokes, Alvarado, Melville, Willink, Nye, Sabrosky, Starobogatov, Brinck, Ride

Negative votes – three (3): Hahn, Binder, Tortonese

Vote 2

Affirmative votes – thirteen (13) received in the following order: Corliss, Halvorsen, Welch, Hahn, Kraus, Mroczkowski, Vokes, Alvarado, Melville, Willink, Sabrosky, Starobogatov, Brinck

Negative votes – five (5): Holthuis, Nye, Ride, Binder, Tortonese

Votes 3 and 4

On 14th January 1981 I received a request from Mr. Heppell under Bylaw 27 to defer publication of the results of the votes on points 3 and 4 of V.P.(80)18 (point 4 had by that time been presented for a second vote under Bylaw 35) and V.P.(80)39. I accordingly took action as requested under Bylaw 24. Mr. Heppell said:

'I seek the Secretary's approval under Bylaw 27 to defer publication of the decision taken by the Commission on points 3 and 4 of V.P.(1980)18 and of that taken on point 4 when re-submitted as V.P.(1980)39 on the grounds that the application presented was incorrect. This incorrect presentation of the proposals relating to parataxa may be established by comparison with those relating to ichnotaxa (V.P.(1980)18, points 1 and 2). In the case of ichnotaxa these taxa had generally been regarded as equivalent to the work of an animal and, as such, their names were unavailable under the Code if published after 1930. It was therefore necessary for the Code to be changed in two ways before the names of such trace fossils could adequately be regulated by it. First, to make it explicit that trace fossils were to be treated for purposes of nomenclature as taxa and not as the work of an animal, so that their availability was assured even if published after 1930. Second, in the special circumstances of their taxonomy as trace fossils impinging on the taxonomy of body fossils, to ensure that neither the ichnotaxon nor the taxon would disappear into the synonymy of the other, regardless of the relative priority of the two names. As in the case of a collective group, the name of an ichnotaxon would remain available for use within the ichnotaxonomic system even if some of its components had been identified with "whole-animal" taxa. Point 1 of the vote established the availability of ichnotaxa as a special kind of taxa. Point 2 established their "parataxonomic" nature in relation to "orthotaxa". It could be argued that point 2 was no more than a special application of the proposal embodied in point 4 but there is nothing intrinsically incorrect in its presentation. Although the form of words used in points 1 and 2 differs considerably from those used in this submission, my argument confirms that the underlying concept of each point is a separate though related substantive change in the existing Code. In the case of parataxa, however, the two underlying concepts are conjunct and cannot logically be subject to separate (and possibly opposing) votes. As Nye has claimed in his comments, "ichnotaxa, parataxa and orthotaxa all merge". The Secretary, in an Appendix to V.P.(1980)18, indicated a number of parallel taxonomies recognised in various phyla. In any such case the taxa of each of the parallel taxonomies are parataxa in relation to the other. As an example, if genera based on gastropod opercula cannot be related on a one-to-one basis to genera based on gastropod shells, not only are the opercula-genera parataxa in relation to the shell-taxa but the shell-genera are parataxa in relation to the opercula-taxa. Thus the concept of parataxa must be independent of any actual classification of assemblages of fossil fragments as no one system of taxonomy is necessarily more "artificial" than another. It seems to have been a failure to appreciate this, that has led to most of the argument against parataxa being recognised in the Code. It is thus evident that parataxa are not absolute but relative. Therefore, as all parataxa are taxa within their own taxonomic systems, the

Code already recognises them and no substantive change is either indicated or possible in this respect. But in order to avoid competition between taxonomies (in practice a very rare event but in theory, as made evident in the Secretary's Appendix, liable to cause nomenclatural instability of considerable magnitude) it is necessary for the Code to be emended so that a taxon and its corresponding parataxon do not compete for priority. As it has been demonstrated that there is no objective criterion for the recognition of a parataxon it can be stated that parataxa are taxa which exist in independent taxonomic systems and consequently do not mutually compete for priority. This assertion makes the necessity for such provision in the Code self-evident and demonstrates that the two aspects of parataxa embodied in the proposals of V.P.(1980)18 are indivisible and that a separate vote on each point is not acceptable.

'I do not object to the manner of presentation of the case to the IUBS General Assembly at Helsinki as the nature of parataxa had to be indicated in a way that would be readily understood. Also, it was not unreasonable to outline those areas in which parataxa are liable to be used, just as one might explain that the use of collective groups is normally confined to helminthology. In approaching the subject from a somewhat different direction, however, I hope I have been able to show that the relationship between taxa and parataxa is essentially philosophical and that their non-competition with each other for priority is implicit in the concept and thus is not susceptible to consideration as an independent issue'.

DECLARATION OF RESULT OF VOTE

I hereby declare that the votes cast on V.P.(80)18 were cast as set out above, and that proposals 1 and 2 contained in that voting paper have been duly adopted. The Commission will incorporate the proposed amendments into the Code, in accordance with the authority given to it by the Division of Zoology of IUBS at Helsinki, in words to be prepared by the Editorial Committee for the Commission's approval. Publication of the results of the votes on proposals 3 and 4 has been deferred under Bylaw 24.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
26 January 1981

OPINION 1162
SCHIZONEURA MEUNIERI HEIE, 1969 (INSECTA: HEMIPTERA): CONSERVED UNDER THE PLENARY POWERS

RULING.- (1) Under the plenary powers the specific name *patchi* Meunier, 1917, as published in the binomen *Schizoneura patchi*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The specific name *meunieri* Heie, 1969, as published in the binomen *Schizoneura meunieri*, as conserved through the ruling given under the plenary powers in (1) above, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2720.

(3) The specific name *patchi* Meunier, 1917, as published in the binomen *Schizoneura patchi*, and as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1071.

HISTORY OF THE CASE Z.N.(S.)1859

An application to resolve the confusion caused by the co-existence of the two binomina, *Schizoneura patchiae* Börner & Blunck, 1916, and *S. patchi* Meunier, 1917, was first received from Dr Ole E. Heie (*Skive Seminarium, Skive, Denmark*) on 28 August 1968. After some correspondence an agreed version was sent to the printer on 22 November 1968 and published on 28 February 1969 in *Bull. zool. Nom.* vol. 25, pp. 222–223. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to seven entomological serials.

Dr C.W. Sabrosky presented a different version of the case and proposed that *S. patchi* Meunier, 1917 be suppressed so as to conserve *S. meunieri* Heie, 1969, the replacement name proposed for it. His comment was published on 7 April 1970 in *Bull. zool. Nom.* vol. 26, p. 183. In it he proposed the solution adopted by the Commission in the present Opinion. He also proposed an amendment to Article 58 of the Code, and this is at present under consideration for the Third Edition of the Code. Dr Heie accepted the correctness of Dr Sabrosky's presentation and asked that the Commission vote on those proposals.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were

invited to vote under the Three-Month Rule on Voting Paper (79)20 for or against the proposals set out in *Bull. zool. Nom.* vol. 26, p. 183. At the close of the voting period on 14 March 1980, the state of the voting was as follows:

Affirmative Votes – nineteen (19) received in the following order: Melville, Willink, Vokes, Corliss, Tortonese, Alvarado, Brinck, Hahn, Habe, Welch, Trjapitzin, Starobogatov, Sabrosky, Kraus, Ride (in part), Halvorsen, Binder, Nye, Cogger

Negative Votes – four (4): Holthuis, Bayer, Mroczkowski, Heppell

Dupuis abstained from voting. No voting paper was returned by Bernardi.

The following comments were returned by members of the Commission with their voting papers:

Holthuis: 'As the name *Schizoneura patchi* has only been used in the original publication, the type of the species is lost, and its identity uncertain, I do not see that anything is gained by suppressing the name. It can hardly cause any confusion, the more so as it is junior to *S. patchiae* Börner & Blunck.'

Mroczkowski: 'Both the original names (*patchiae* and *patchi*) are nomenclaturally distinct and valid. We must strictly observe the rules of the Code. If we allow the present application to create a precedent, thousands of similar applications will come to the Commission. In the same group of insects (aphids), in the tribe PHYLLAPHIDINI, there are two generic names *Calaphis* Walsh, 1863 and *Callaphis* Walker, 1870. The coexistence of two such similar generic names in the same tribe is also unfortunate, but no application has hitherto reached the Commission [such an application has indeed reached the Secretariat, but it is not yet fully prepared for publication. R.V.M.]. I have discussed this problem with Professor Szelegiewicz, our aphid specialist, and he supports my opinion.'

Heppell: 'As nearly 10 years have elapsed since the original proposals, as modified by Sabrosky, were published, it seems unfortunate that this case is now brought to the vote when provisions affecting the status of the name *Schizoneura patchi* are not only included in the Draft Third Edition of the Code but were accepted in a preliminary vote by those members of the Commission meeting at Lund and Helsinki in 1979. Under draft Article 31, *S. patchi* Meunier, 1917, would be an incorrect original spelling of, and under draft Article 58 a junior primary homonym of, *S. patchiae* Börner & Blunck, 1916. The invalidity of *S. patchi* would follow and would not require suppression under the plenary powers. If this were my only objection I would not oppose the application but merely regret a decision being made while a significant provision

affecting the case is *sub judice*. What I cannot support, however, is the proposal to validate *meunieri* for a taxon admitted to be unrecognised since its original description and for which the whereabouts of the type are unknown. It is bad enough for Heie to have published a replacement name in the first place, but for the Commission to contemplate adding it to the Official List is manifestly fatuous.'

Ride: '*S. patchi* Meunier is known only from the type specimen which has now disappeared. It has been mentioned only in the type description and the current application. Validating the name *S. meunieri* is unnecessary and may even create a taxonomic encumbrance. If Heie considers that the species is a good one he would do better to redescribe it with fresh material and thereby avoid having to go through the procedures required by Article 75. I do not support Sabrosky's proposal (b), validation of *S. meunieri*.'

Dupuis: 'Abstention (je n'ai pas les *Bulletins* 25 et 26) parce que je trouve singulier que ce cas ait attendu si longtemps.'

ORIGINAL REFERENCES

The following are the original references to names placed on an Official List and an Official Index by the ruling given in the present Opinion:

meunieri, Schizoneura, Heie, 1969, *Bull. zool. Nom.* vol. 25, p. 222

patchi, Schizoneura, Meunier, 1917, *Verh. k. Akad. Wet. Amsterdam*, vol. 20, p. 7.

CERTIFICATE

I hereby certify that the votes cast on V.P.(79)20 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1162.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
18 April 1980

OPINION 1163
CONUS MOLUCCENSIS (MOLLUSCA: GASTROPODA) IS AVAILABLE AS FROM THE WORK OF KÜSTER, 1838

RULING.- (1) The request to use the plenary powers to declare the specific name *moluccensis,* as published in the binomen *Conus moluccensis*, available from the work of Dillwyn, 1817, is refused.

(2) The specific name *moluccensis* Küster, 1838, as published in the binomen *Conus moluccensis*, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2721.

HISTORY OF THE CASE Z.N.(S.)2059

A request for a ruling on whether the name *Conus moluccensis* was made available by Dillwyn, 1817, was first received from Dr W.O. Cernohorsky (*Auckland Institute and Museum, New Zealand*) on 19 December 1973. After an exchange of correspondence, a formal application was received on 14 January 1974, sent to the printer on 14 April 1974, and published on 20 September 1974 in *Bull. zool. Nom.* vol. 31, pp. 156–158. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to two malacological serials.

Dr Cernohorsky asked the Commission to vote for one of two alternatives: either (A) for the use of the plenary powers to suppress *C. moluccensis* Dillwyn, 1817 and place *C. moluccensis* Küster, 1838 on the Official List; or (B) to rule that *C. moluccensis* was made available by Dillwyn, 1817, and to so place it on the Official List. Dr Harald Rehder (*U.S. National Museum, Washington, D.C.*) held that the name was not made available by Dillwyn and accordingly supported Alternative A. Dr A.J. Kohn (*University of Washington, Seattle*) supported Alternative B. No other comments were received.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1979) 22, in Part 1 for or against the use of the plenary powers in the present case, and in Part 2 for or against using those powers to declare *Conus moluccensis* available as from the work of Dillwyn, 1817. The following note accompanied the voting paper.

NOTE TO ACCOMPANY V.P.(79)22

'It seems to me that the first question to be answered is whether Dillwyn made the specific name *moluccensis* available or not. Dr Cernohorsky provided a facsimile of the original work which, I believe, enables this question to be answered quite clearly in the negative. Dillwyn quotes the name from Chemnitz, i.e. Martini, F.H.W. & Chemnitz, J.H., 1769–95, *Neues systematisches Conchylien-Cabinet* (Nürnberg), and the species-group names in that work were ruled to be unavailable in Opinion 184 (*Ops Decls I.C.Z.N.*, vol. 3: 25–36, 1944), so that the specific name *moluccensis* was not available when Dillwyn received it. His index entry is printed in italics which, from Dillwyn's own statement, shows that it was not valid for him. This shows that the citation of Chemnitz's figures is to be read as a bibliographic reference rather than as an indication under Article 16. He says that *C. moluccensis* differs materially from *C. pertusus* Bruguière, but since he does not say how it differs, he gives neither description nor definition; furthermore he does not cite *C. moluccensis* as a synonym of *C. augur*, so that Article 11d does not come into play. These are my reasons for concluding that Dillwyn did not make *Conus moluccensis* available. In fact he cited the name incidentally as a possible instance of a certain method of artificial preparation of shells.

'The Commission can, of course, vote for Alternative B and rule under its plenary powers that *Conus moluccensis* is to be deemed available from Dillwyn's work and is to be interpreted by reference to Chemnitz's description accompanied by two figures of one individual. In my view, however, a vote for Alternative A would not require plenary powers and would be effective on a simple majority. In that case, the name would be attributed (on the basis of the information at present available to the Commission) to Küster, 1838.

'You are therefore invited to vote on the attached Voting Paper, in Part 1, for or against the use of the plenary powers in the present case; and in Part 2, either for or against ruling that *Conus moluccensis* is available as from Dillwyn, 1817. All those who voted *against* in Part 1 will be considered to have voted *against* in Part 2 and for attributing *C. moluccensis* to Küster, 1838. A two-thirds majority of those voting *for* in Part 1 will be needed to give an affirmative answer in Part 2.

'Whatever decision is reached in this issue will be without prejudice to the general question of the conditions under which an unavailable name can be made available by a subsequent author.'

At the close of the voting period on 14 March 1980 the state of the voting was as follows:

Part 1

Affirmative Votes – six (6) received in the following order: Mroczkowski, Sabrosky, Habe, Dupuis, Nye, Heppell

Negative Votes – eighteen (18) received in the following order: Melville, Holthuis, Bayer, Willink, Vokes, Corliss, Tortonese, Trjapitzin, Alvarado, Brinck, Habe, Welch, Starobogatov, Kraus, Ride, Binder, Halvorsen, Cogger

Part 2

Affirmative Votes – five (5) received in the following order: Mroczkowski, Sabrosky, Dupuis, Nye, Heppell

Negative Vote – Habe

No voting paper was returned by Bernardi.

The following comments were sent in by members of the Commission with their votes:

Mroczkowski: 'It is clear to me that the citation of Chemnitz's figures in Dillwyn's work is a correct indication under Article 16a(i). Thus Dillwyn made the name *Conus moluccensis* available and is its author.'

Trjapitzin: 'I vote for attributing the name *Conus moluccensis* to Küster, 1838 and agree with Dr Rehder and the note by the Secretary.'

Sabrosky: 'Dillwyn's index shows that *Conus moluccensis* was a name cited in synonymy, and under Article 11d it might have been made available from Dillwyn if the name had been adopted by some later author. Kohn did not know of such use but pointed out that it might have happened (Küster's *moluccensis* was apparently a separate proposal). I agree with Kohn that recognising the name from Dillwyn, 1817, is the safest course.'

Ride: 'I hold that the vote should be taken again under the One-Month Rule. The only way that the Commission could validate the name from Dillwyn is by setting aside the provisions of Article 1. That action would be necessary before a name not applied by its author to a taxonomic unit of animals could be admitted into zoological nomenclature. [The only exceptions are names proposed before 1961 for "conditional" application (implicit in Article 15) and names subsequently made available from earlier publication in synonymy through Article 11d]. The question as to whether Chemnitz recognised the taxon is irrelevant, and Dillwyn does not publish the name in synonymy.

'A new vote must be called for procedural reasons also. The second vote cannot be restricted to those who vote for the use of the plenary powers. I vote *both* against the use of the plenary powers (as being unnecessary) *and* against the introduction of the name from Dillwyn (for the reasons given).' [In view of the clear cut nature of the Commission's decision, it seems that no useful

purpose would be served by reopening the case. R.V.M.]

Heppell: 'Cernohorsky asked the Commission to rule on the availability of *Conus moluccensis* Dillwyn, 1817. If it were ruled to be not available under the Code (i.e. without the use of the plenary powers) the date and authorship would fall to Küster, 1838. If it were considered available from Dillwyn, the Commission was asked to make that opinion explicit, or to suppress that usage in favour of Küster's. If these alternative proposals had been brought to the vote, my opinion would have been that *C. moluccensis* was available as of Dillwyn, 1817, and that there was no reason to suppress that usage as there was no threat therefrom to stability of nomenclature. Thus I would have voted for Alternative B, and for much the same reasons as Kohn in his comment – i.e. if Dillwyn's name is not available by his exact reference to the Chemnitz figures, then nor are a great many, Röding, 1798, names proposed in exactly the same way and in daily use. I wish Rehder had indicated which were "the several names in Dillwyn that would be validated if these names are ruled available"; after an extensive search through the two volumes I could not find a single example.

'As the Secretary took an opposite view to the applicant (who had regarded the Dillwyn usage as "probably available") in his note accompanying the voting paper, the choice of Alternative B has been pre-empted and Dillwyn must be deemed by use of the plenary powers to have made the name available. Then so be it. My interpretation of Dillwyn's intentions is as follows. *Conus moluccensis* was (and is) a rare species, known to Dillwyn only through Chemnitz's figures and description. Most of Chemnitz's names had been made available (and reduced to binominal names) by Gmelin, 1791, or Röding, 1798, but volume 11 of the *Conchylien-Cabinet* had come out too late (1795) to be noticed by either of those authors. Consequently Dillwyn was one of the first to catalogue the new species described in that volume. It is misleading of the Secretary to state that the specific name *moluccensis* was not available when Dillwyn received it, as it was no less available then than when Küster received it in 1838 (unless Dillwyn had already made it available before him). Küster attributed the name to Chemnitz, as did Kiener, 1846, *Spéc. Gén. Coq. Viv.*, vol. 2, p. 49) and many subsequent authors who were not to know that this universally used work (with its specific names usually conventionally binominalised) would be ruled unavailable in 1944. As stated by Cernohorsky, Dillwyn did not publish the name in the synonymy of *C. augur*. Not being sure where to place them, he mentioned the two species *C. pertusus* and *C. moluccensis* between *C. augur* and the next species (a) because [Hwass in] Bruguière described *C. pertusus* following *C. augur*, and (b) because he sus-

pected (incorrectly) that both might be based on artifically doctored shells. He might have doubted their validity but he certainly regarded them as available names (not synonyms) and in the case of *C. moluccensis* conferred availability on them by giving a bibliographic reference to the description and figures of Chemnitz (an "indication" for a specific name according to Article 16a(i)).'

ORIGINAL REFERENCE

The following is the original reference to a name placed on the Official List by the ruling given in the present Opinion:

moluccensis, Conus, Küster, 1838, *Syst. Conch.-Cabinet von Martini und Chemnitz. Familie der Coneae oder Conidae*, ed 2, vol. 4 (2), pp. 121, 181, pl. 23, figs. 4, 5. Nuremberg.

CERTIFICATE

I hereby certify that the votes cast on V.P.(79)22 were cast as set out above, that the proposal for the use of the plenary powers contained in that voting paper has been duly rejected, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1163.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
21 April 1980

OPINION 1164
REFUSAL OF REQUEST TO SUPPRESS *CALOMICRUS TAENIATUS* WOLLASTON, 1867 (INSECTA, COLEOPTERA)

RULING.– (1) The request that the plenary powers be used to suppress the specific name *taeniatus* Wollaston, 1867, as published in the binomen *Calomicrus taeniatus*, is hereby refused.

(2) The specific name *taeniatus* Wollaston, 1867, as published in the binomen *Calomicrus taeniatus*, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2722.

HISTORY OF THE CASE Z.N.(S.)2012

A request for the suppression of *Calomicrus taeniatus* Wollaston, 1867 was first received from Dr Hans Silfverberg (*Zoological Museum, University of Helsinki, Finland*) on 13 July 1972. After some correspondence with Dr Silfverberg, the application was sent to the printer on 27 August 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31, pp. 216–217. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to seven entomological journals. No comment was received.

FIRST VOTE OF THE COMMISSION

On 22 September 1976 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1976)20 for or against the proposals published in *Bull. zool. Nom.* vol. 31, pp. 216–217. At the close of the voting period on 22 December 1976 the state of the voting was as follows:

Affirmative Votes – thirteen (13) received in the following order: Melville, Eisenmann, Vokes, Willink, Lemche, Tortonese, Ride, Brinck, Bayer, Binder, Corliss, Starobogatov, Welch

Negative Votes – nine (9) received in the following order: Mroczkowski, Holthuis, Rohdendorf, Habe, Sabrosky, Dupuis, Nye, Kraus, Bernardi

Alvarado returned a late affirmative vote. No voting paper was returned by Heppell.

The following comments were returned by members of the Commission with their voting papers:

Eisenmann: 'My affirmative vote is subject to the modification suggested below. Considering the vast distance separating the type locality of *Calomicrus taeniatus* (Cape Verde Islands in

the Atlantic) from that of *Luperus quaternus* (Madagascar, Indian Ocean) I wonder whether it would not be better simply to give precedence to *quaternus* for zoologists considering the names synonymous, thus preserving *taeniatus* if ever the Cape Verde population were given subspecific rank.'

Mroczkowski: 'As *Calomicrus taeniatus* Wollaston, 1867 and *Luperus quaternus* Fairmaire, 1880 are subjective synonyms, both should remain nomenclaturally available. *C. taeniatus* should not be placed on the Official Index of Rejected and Invalid Specific Names in Zoology.'

Rohdendorf: 'I vote against Dr Silfverberg's proposal because *C. taeniatus* is not a forgotten name. It was mentioned in catalogues in 1924 and 1973. This is a typical case for the application of the Law of Priority.'

Sabrosky: 'I find it odd that the name *quaternus* is said to be used in "many works . . . of applied entomology" but that the insect, on the other hand, is only "potentially" noxious.'

Dupuis: 'Quelle serait la situation si l'on constatait que les deux noms concernent en fait des sous-espèces différentes? L'espèce n'étant que "potentially" nuisible il n'y a aucun inconvénient à respecter pour l'instant la priorité.'

Nye: 'I would be willing to vote in favour of a ruling that *L. quaternus* should be given nomenclatural precedence over *C. taeniatus* by anyone who treats them as referring to the same taxon. That is nomenclature. I am not, however, willing to endorse a subjective synonymy and permanently suppress a name when no lectotype has been selected for the species concerned from the "long series of syntypes" from the Cape Verde Islands. It is quite possible that a scientist other than the applicant may wish to treat them as subspecifically separable from the Madagascar population.'

Kraus: 'I vote against the proposal: the applicant did not offer information detailed enough to explain the potential difficulties that would result from the adoption of the senior synonym.'

Bernardi: 'Puisqu'il s'agit simplement d'une espèce "potentially noxious" il faut mieux la désigner par son nom correct, choisir un lectotype de *Calomicrus taeniatus*, et placer *Luperus quaternus* en synonymie. Ainsi si cette espèce devient vraiment nuisible un jour sa nomenclature sera déjà éclaircie et stabilisée, et il n'y aura pas lieu de s'adresser à la Commission.'

SECOND VOTE AND DECISION OF THE COMMISSION

Since the proposals in V.P.(76)20 had been adopted by a majority smaller than a two-thirds majority, it was necessary under Bylaw 35 to call for a second vote, accompanied by a report on the

first vote and a statement of the alternative nomenclatural consequences of acceptance or rejection of the request for the use of the plenary powers. I therefore reported the result of the vote on V.P.(76)20 and the comments reproduced above, and added:

'Taking the above comments into account, it seems to me that the Commission ought, in reconsidering its vote, to choose, first, whether or not to use its plenary powers in the case. This question can be decided by a simple majority vote; and if there is not such a majority for the use of the plenary powers, then the Law of Priority will apply. In that event, I should write a Ruling placing *Calomicrus taeniatus* Wollaston, 1867, on the Official List without mentioning *Luperus quaternus* Fairmaire, 1880.

'If there is a majority for the use of the plenary powers, then the Commission ought to choose whether to use those powers to suppress the senior synonym *Calomicrus taeniatus* (the original proposal), or to give the junior synonym (*Luperus quaternus*) nomenclatural precedence for all zoologists who regard the two specific names as synonymous. A two-thirds majority of the votes validly cast will be required for the adoption of either alternative.

'If the first alternative is adopted, *taeniatus* will be suppressed and *quaternus* will be placed on the Official List. If the second alternative is adopted, both names will be placed on the Official List – *quaternus* with an endorsement that it is to be given precedence over *taeniatus* by those zoologists who consider both names to be synonymous; and *taeniatus* with an endorsement that it is not to be given priority over *quaternus* by those zoologists who consider both names to be synonymous.

'The proposed steps are set out on the attached Voting Paper V.P.(77)12.'

In V.P.(77)12, issued on 1 July 1977 under the Three-Month Rule, the members of the Commission were accordingly invited, in Part 1, to vote for or against the use of the plenary powers in the present case; and in Part 2 to vote either for Alternative A (the suppression of *Calomicrus taeniatus* Wollaston, 1867, for the purposes of the Law of Priority but not for those of the Law of Homonymy), or for Alternative B (the grant of nomenclatural precedence to *Luperus quaternus* over *Calomicrus taeniatus*). At the close of the voting period on 1 October 1977, the state of the voting was as follows:

Part 1

Affirmative Votes – ten (10) received in the following order: Melville, Eisenmann, Mroczkowski, Holthuis, Nye, Rohdendorf, Binder, Corliss, Welch, Bayer

Negative Votes – ten (10) received in the following order: Dupuis, Vokes, Willink, Heppell, Starobogatov, Sabrosky, Cogger,

Habe, Ride, Kraus

Part 2

Alternative A

Affirmative Votes – none (0)

Alternative B

Affirmative Votes – thirteen (13) received in the following order: Melville, Dupuis, Eisenmann, Mroczkowski, Holthuis, Nye, Rohdendorf, Binder, Corliss, Welch, Cogger, Habe, Bayer; plus four (4) conditional votes: Vokes, Willink, Ride, Kraus

Alvarado sent in a late affirmative vote for the use of the plenary powers and for Alternative A in Part 2. No voting papers were returned by Bernardi, Lemche and Tortonese.

Dr Cogger observed: 'Not having been involved in the first vote, I believe that the original proposal of Silfverberg did not make a convincing case for the use of the plenary powers and thus the Law of Priority should apply. Given the distance between the type localities of the two species and the existence of the original type material of both taxa it would, in my view, be inappropriate to suppress the name *Calomicrus taeniatus* Wollaston.'

As there was no majority for the use of the plenary powers in the second vote; as each of the alternatives offered in the second part of the Voting Paper called for the use of those powers; and as Bylaw 36 requires a two-thirds majority for a favourable vote, it is clear that neither of the said alternatives has been adopted. As a result, the original proposal is lost and the Law of Priority applies.

ORIGINAL REFERENCE

The following is the original reference to a name placed on an Official List by the ruling given in the present Opinion:

taeniatus, Calomicrus, Wollaston, 1867, *Coleoptera Hesperidum, being an enumeration of the coleopterous insects of the Cape Verde archipelago*, London (van Voorst), p. 145.

CERTIFICATE

I hereby certify that the votes cast on Voting Papers (76)20 and (77)12 were cast as set out above, that the request for the use of the plenary powers in the present case has been refused, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1164.

R.V. MELVILLE, *Secretary*
International Commission on Zoological Nomenclature, London. 19 Aug. 1980

OPINION 1165
SCYTALE NIGER DAUDIN, 1803 (REPTILIA, SERPENTES) SUPPRESSED

RULING.– (1) Under the plenary powers the specific name *niger* Daudin, 1803, as published in the binomen *Scytale niger*, and all uses of that name prior to the publication of *Scytale neuwiedii*, var. *nigrum* Duméril, Bibron & Duméril, 1854, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The specific name *niger* Daudin, 1803, as published in the binomen *Scytale niger*, and all uses of that name prior to the publication of *Scytale neuwiedii* var. *nigrum* Duméril, Bibron & Duméril, 1854, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1072.

HISTORY OF THE CASE Z.N.(S.)2077

An application for the suppression of *Scytale niger* Daudin, 1803, was first received from Mr. Andrew Stimson (*British Museum, Natural History*) on 1 December 1971. After an exchange of correspondence it was sent to the printer on 27 August 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31, pp. 247–248. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to two herpetological serials. The application was supported by Professor Hobart Smith (*University of Colorado*). No adverse comment was received.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1979)21 for or against the proposals set out in *Bull. zool. Nom.* vol. 31, pp. 247–248. At the close of the voting period on 14 March 1980 the state of the voting was as follows:

Affirmative Votes – twenty (20) received in the following order: Melville, Mroczkowski, Willink, Vokes, Corliss, Tortonese, Trjapitzin, Alvarado, Habe, Brinck, Hahn, Welch, Starobogatov, Sabrosky, Kraus, Ride, Halvorsen, Binder, Nye, Cogger

Negative votes – four (4): Holthuis, Bayer, Heppell, Dupuis

No voting paper was returned by Bernardi.

The following comments were returned by members of the Commission with their voting papers:

Holthuis: 'I vote against this proposal for two reasons:

'1. Evidently the name *Pseudoboa nigra* is not a commonly used name: in paragraph 2 of the application it is stated that the name has been used only three times since 1964. A strict application of priority would not do much harm, if any, here.

'2. As the proposal is now worded, its acceptance would not save the name *nigrum* Duméril, Bibron & Duméril. Suppression of *Scytale niger* Daudin, 1803 for the purposes of both priority and homonymy would make *Scytale niger* Harlan, 1827 (mentioned in paragraph 4 of the application) an available name, which in its turn invalidates *nigrum* D. B. & D. This could be corrected by adding in the first line of the proposal on p. 248 "and all uses of the name *Scytale nigra* before the publication of *Scytale neuwiedii* var. *nigrum* Duméril, Bibron & Duméril, 1854".' [This point has been taken into account in drafting the present ruling. R.V.M.]

Bayer: 'If the name *niger* Daudin, 1803 is suppressed for both priority and homonymy as proposed, Harlan's 1827 usage of *Scytale niger* becomes a senior homonym of *S. neuwiedii* var. *nigrum* Duméril, Bibron & Duméril, 1854.'

Heppell: 'I vote against the proposals, as to vote for would be to acquiesce in the presumption that *Scytale neuwiedii* var. *nigrum* is a junior primary homonym of *S. niger*. As a result of an ill-conceived modification to Article 45e, the post-Monaco Code treats all named varieties as nomenclaturally equivalent to subspecies, and the present case is an excellent example of the chaos consequent to that injudicious decision. I have argued at length elsewhere against condoning that ruling in the new edition of the Code, and as my submission was supported by the preliminary vote of the Commissioners meeting at Lund, I do not intend to rehearse it again here. It is apparent from Bailey's presentation of the *Lystrophis* case (1962, *Bull. zool. Nom.*, vol. 19, pp. 164–169) that *S. neuwiedii* var. *nigrum* was originally conceived as of infrasubspecific rank. Duméril, Bibron & Duméril themselves, in the same work in which they described that form, recognised *Scytale niger* Daudin (as *Heterodon niger*) as an available name for another taxon. *Pseudoboa nigra*, as a taxon of the species group, should have been attributed to Bailey, 1962, this being the authorship and date of its elevation (Article 10b). Nevertheless, it has been common practice for an author raising a varietal name to maintain its original authorship and date. Although the Commission adopted Bailey's traditional attribution of the varietal name to Duméril, Bibron & Duméril, 1854 when the name was placed on the Official List, it does not follow, in the absence of any explicit statement published with Opinion 698 (1964, *Bull. zool. Nom.* vol. 21, pp. 101–103) that any inference as to its subspecific status in 1854 can

be drawn therefrom. Accordingly I do not acknowledge that *Scytale niger* is a threat to the established use of *Pseudoboa nigra*.' [Articles 45d(i) and 45e(i) of the London (1961) Code taken together make names such as *Scytale neuwiedii* var. *nigrum* of subspecific rank. The Monaco amendment did not modify this rule; it merely stated it in more explicit terms. R.V.M.]

Dupuis: '(1) *Scytale niger* Daudin, 1803, t.5, p. 342, est nomenclatoriquement valide aux termes des règles actuelles. (2) Je remarque que c'est ce nom prioritaire, proposé comme celui d'une espèce, que l'on voudrait supprimer au profit d'un nom ultérieur, proposé comme celui d'une variété. (3) Taxinomiquement, il y aura peut-être besoin un jour de disposer du nom *niger* Daudin pour la variété (ou sous-espèce) mélanique de *platirhinos*. (4) La requête ne précise pas le degré de confiance à accorder taxinomiquement à la synonymie *cacodaemon* Shaw, 1802 = *niger* Daudin, 1803. Pour ces quatre raisons, je vote contre.

'J'ajoute, à titre documentaire, que *Heterodon platirhinos* n.g., n.sp. n'est pas de Latreille, mais de Palisot de Beauvois, dans un "Mémoire sur les serpens" signé et inséré dans Sonnini & Latreille, tome 3, 1801, pp. 63–92. On y trouve le nom de genre, p. 66, et le nom d'espèce dans le "Tableau comparatif . . . des dents", face p. 88. Daudin, dans son tome 5, pp. 47–73, a reproduit le mémoire et le tableau de Palisot.'

ORIGINAL REFERENCE

The following is the original reference for a name placed on an Official Index by the ruling given in the present Opinion:

niger, Scytale, Daudin, 1803, *Histoire naturelle, générale et particulière des reptiles*, (Paris) p. 342.

CERTIFICATE

I hereby certify that the votes cast on V.P.(79)21 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1165.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
26 August 1980

OPINION 1166
LIPARTHRUM WOLLASTON, 1854 (COLEOPTERA, SCOLYTIDAE) CONSERVED

RULING.– (1) Under the plenary powers it is hereby ruled that *Liparthrum* is the correct original spelling of the generic name *Leiparthrum* Wollaston, 1854.

(2) The generic name *Liparthrum* Wollaston, 1854 (gender: neuter), type species, by original designation, *Liparthrum* (correction of *Leiparthrum*) *bituberculatum* Wollaston, 1854, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2109.

(3) The specific name *bituberculatum* Wollaston, 1854, as published in the binomen *Liparthrum* (correction of *Leiparthrum*) *bituberculatum* (specific name of type species of *Liparthrum* Wollaston, 1854), is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2723.

(4) The generic name *Leiparthrum* Wollaston, 1854 (an incorrect original spelling through the ruling under the plenary powers in (1) above of *Liparthrum*) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 2115.

HISTORY OF THE CASE Z.N.(S.)2071

An application for the conservation of the generic name *Liparthrum* Wollaston, 1854, was first received from Professor Stephen L. Wood (*Brigham Young University, Provo, Utah, U.S.A.*) on 13 May 1974. It was then sent to the printer on 27 August 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31, pp. 234–235. Public Notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory journals and to eight entomological serials.

The application was supported by Prof. Anton Pfeffer (*Prague*) and by Dr. J.J. Menier (*Paris*) and, though with some reservations, by Prof. Dr. Schedl (*University of Linz, Austria*) and Dr. D.E. Bright (*Biosystematics Research Institute, Ottawa, Canada* (*Bull. zool. Nom.* vol. 32, p. 135). It was opposed by Dr R.K. Brooke (*Durban Museum, RSA*) (*ibid.*) because 'no compelling reason other than the weight of erroneous usage has been offered in support of the proposed conservation. It is not the purpose of the plenary powers to canonise by subsequent edict errors for which wide support can be cited when the inconvenience caused by application of the provisions of the Code is minimal'.

Professor Wood replied in *Bull. zool. Nom.* vol. 33, p. 4

(26 June 1976) with revised proposals, and it was on these that the Commission has now voted. No comment was received on them.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (79)23 for or against the proposals set out in *Bull. zool. Nom.* vol. 33, p. 4. At the close of the voting period on 14 March 1980 the state of the voting was as follows:

Affirmative Votes – eighteen (18) received in the following order : Melville, Holthuis, Bayer, Mroczkowski, Willink, Vokes, Corliss, Tortonese, Alvarado (a conditional vote), Brinck, Hahn, Habe, Trjapitzin, Starobogatov, Ride, Nye, Binder, Halvorsen

Negative Votes – five (5): Heppell, Welch, Sabrosky, Kraus, Cogger

Abstention – Dupuis

No voting paper was returned by Bernardi.

The following comments were returned by members of the Commission with their voting papers:

Welch: 'The change in spelling of *Leiparthrum* Wollaston, 1854, to *Liparthrum* Wollaston, 1864 is not a question of priority in my opinion, but a case of an "incorrect subsequent spelling" [Art. 33b]. As Wollaston gave no reason for the change in spelling one can only assume, using Occam's razor, that it was a *lapsus calami* which was subsequently repeated by other authors. To cite transliteration from Greek to Latin as the cause is an assumption. To argue that there are 150 citations in which *Liparthrum* was used still does not correct an error. The error in spelling can be cited in the synonymy of the genus and thus noted in the literature.'

Sabrosky: 'I share Bright's reservations and agree with Brooke. In addition, I object to the amended proposal: we should not declare *Liparthrum* the correct original spelling, but a valid emendation.'

Kraus: 'I totally agree with the reservations expressed by Brooke, as the name in question does not have any importance in a more general sense. Therefore I can see no objection to the application of the relevant automatic provisions of the Code.'

Cogger: 'I concur fully with the comments of R.K. Brooke.'

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

bituberculatum, Leiparthrum, Wollaston, 1854, *Insecta Maderensia, being an account of the insects of the islands of the Madeiran group*, p. 294

Leiparthrum Wollaston, 1854, *Insecta Maderensia, being an account of the insects of the islands of the Madeiran group*, p. 294

Liparthrum Wollaston, 1864, *Catalogue of the coleopterous insects of the Canaries in the collection of the British Museum*, p. 265.

CERTIFICATE

I hereby certify that the votes cast on V.P.(79)23 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1166.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
2 September 1980

OPINION 1167
PHLOEOSINUS CHAPUIS, 1869 (COLEOPTERA, SCOLYTIDAE) CONSERVED

RULING.– (1) Under the plenary powers the generic name *Olonthogaster* Motschulsky, 1866, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Phloeosinus* Chapuis, 1869 (gender: masculine), type species, by subsequent designation by Hopkins, 1914, *Hylesinus thujae* Perris, 1855, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2110.

(3) The specific name *thujae* Perris, 1855, as published in the binomen *Hylesinus thujae* (specific name of type species of *Phloeosinus* Chapuis, 1869) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2724.

(4) The generic name *Olonthogaster* Motschulsky, 1866, as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 2116.

HISTORY OF THE CASE Z.N.(S.)2072

An application for the conservation of *Phloeosinus* Chapuis, 1869 was first received from Professor Stephen L. Wood (*Brigham Young University, Provo, Utah, U.S.A.*) on 13 May 1974. It was sent to the printer on 27 August 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31, pp. 236–237. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to eight entomological serials. Support was expressed by Professor Schedl (*University of Linz, Austria*), Professor Anton Pfeffer (*Prague*), Dr J.J. Mercier (*Paris*), and Dr D.E. Bright (*Biosystematics Research Institute, Ottawa, Canada*). No hostile comment was received.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1979)24 for or against the proposals set out in *Bull. zool. Nom.* vol. 31, p. 236. At the close of the voting period on 14 March 1980 the state of the voting was as follows:

Affirmative Votes – twenty-two (22) received in the following order: Melville, Holthuis, Bayer, Mroczkowski, Willink,

Vokes, Corliss, Tortonese, Trjapitzin, Alvarado, Brinck, Hahn, Habe, Welch, Starobogatov, Sabrosky, Kraus, Ride, Dupuis, Binder, Halvorsen, Cogger

Negative Votes – Heppell, Nye

No voting paper was returned by Bernardi.

The following comments were returned by members of the Commission with their voting papers:

Hahn: 'I would have preferred to use the "relative precedence" procedure to give *Phloeosinus* precedence over *Olonthogaster* whenever the two names are considered to be synonyms.'

Nye: 'Although I support the conservation of *Phloeosinus*, I must vote against the proposal for the unconditional suppression of a subjective synonym. Whether or not the two genera are taxonomically congeneric is a matter of opinion which I cannot assess. The applicant would have had my full support if he had asked for precedence to be given to *Phloeosinus* whenever considered to be a synonym of *Olonthogaster*.'

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Olonthogaster Motschulsky, 1866, *Bull. Soc. imp. Nat. Moscou*, vol. 39, p. 401

Phloeosinus Chapuis, 1869, *Synopsis des Scolytidés (Paris)*, p. 37; *Mém. Soc. roy. Sci.* Liége, ser. 2, vol. 3, p. 245

thujae, Hylesinus, Perris, 1855, *Ann. Soc. entomol. France*, ser. 3, vol. 3, pp. lxxvii–lxxviii.

The following is the original reference for a type-species fixation accepted in the present ruling: of *Hylesinus thujae* Perris, 1855 for *Phloeosinus* Chapuis, 1869 by Hopkins, 1914, *Proc. U.S. nat. Mus.* vol. 48, pp. 115–136.

CERTIFICATE

I hereby certify that the votes cast on V.P.(79)24 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1167.

R.V. MELVILLE, *Secretary*
International Commission on Zoological Nomenclature, London. 2 Sept. 1980

OPINION 1168
CACATUA DUCORPSII PUCHERAN, 1853 (AVES) CONSERVED

RULING.– (1) Under the plenary powers, the specific name *ducrops* Bonaparte, 1850, as published in the binomen *Plyctolophus DuCrops* [*sic*] is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonym.

(2) The specific name *ducorpsii* Pucheran, 1853, as published in the binomen *Cacatua ducorpsii in* Jacquinot & Pucheran, 1853, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2725.

(3) The specific name *ducrops* Bonaparte, 1850, as published in the binomen *Plyctolophus DuCrops* [*sic*], and as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1073.

HISTORY OF THE CASE Z.N.(S.)2074)

An application for the conservation of the spelling *ducorpsii* for the specific name of Ducorps' Cockatoo, generally known as *Cacatua ducorpsii*, was first received from Dr E. Eisenmann (*American Museum of Natural History, New York*) and Dr J.M. Forshaw (*CSIRO Division of Wildlife Research, Canberra, Australia*) on 6 June 1974. It was sent to the printer on 27 August 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31, pp. 240–243. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to two ornithological serials. No comment was received.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1979)26 for or against the proposal set out in *Bull. zool. Nom.* vol. 31, p. 243. At the close of the voting period on 14 March 1980 the state of the voting was as follows:

Affirmative Votes – twenty-two (22) received in the following order: Melville, Holthuis, Bayer, Mroczkowski, Willink, Vokes, Corliss, Tortonese, Trjapitzin, Alvarado, Habe, Brinck, Hahn, Heppell, Welch, Starobogatov, Sabrosky, Kraus, Ride, Binder, Nye, Halvorsen

Negative Votes – Dupuis, Cogger

No voting paper was returned by Bernardi.

The following comments were sent in by members of the Commission with their voting papers:

Bayer: 'Although I am in favour of this proposal, I think it would have been better to request a ruling that *Plyctolophus DuCrops* was an incorrect original spelling which should be corrected to *ducorpsii* (or even *ducorps*), thus maintaining the authorship and date employed in Forshaw's monograph.'

Welch: 'While I have voted for the proposal, I question the second section. Attention should be drawn to Recommendation 31A. It seems to me that the proper spelling of the specific epithet would be *Cacatua ducorpsi*. Eisenmann's reference (*Bull. zool. Nom.* vol. 31, p. 243) to a homonym under Article 58(10) appears unnecessary to me. Only one taxon is involved, which unfortunately has had its specific epithet spelled incorrectly in several ways and at several times.'

Dupuis: 'Je propose, en vertu des pleins pouvoirs: *ducorpsi* Bonaparte, 1850, ex Hombron & Jacquinot, pour conserver une trace de l'histoire.'

Cogger: 'I do not see any need for the exercise of the plenary powers in this case. *Plyctolophus DuCrops* of Bonaparte, 1850, is clearly a valid name, except that, as suggested by the proponents (*Bull. zool. Nom.* vol. 31, p. 241) there is clear evidence of an inadvertent error in the original publication by virtue of such evidence being present in the "indication". Consequently the valid specific name for Ducorps' Cockatoo is *ducorps*, as published in the binomen *Plyctolophus ducorps* Bonaparte, 1850.'

ORIGINAL REFERENCE

The following are the original references for names placed on an Official List and an Official Index by the ruling given in the present Opinion:

ducorpsii, Cacatua Pucheran, 1853, *in* Jacquinot & Pucheran, *Voyage au Pôle sud*, Zoologie, vol. 3, p. 108.

DuCrops, Plyctolophus, Bonaparte, 1850, *C.r. Acad. Sci. Paris*, vol. 30, p. 138.

CERTIFICATE

I certify that the votes cast on Voting Paper (79)26 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1168.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
3 September 1980

OPINION 1169
CATAPHRACTUS PUNCTATUS BLOCH, 1794 (PISCES): LECTOTYPE DESIGNATION APPROVED

RULING.– (1) The neotype designation for *Cataphractus punctatus* Bloch, 1794 made by Nijssen and Isbrücker, 1967, *Zool. Meded. Leiden*, vol. 42, pp. 28–30, is hereby set aside.

(2) The specific name *punctatus* Bloch, 1794, as published in the binomen *Cataphractus punctatus*, and as interpreted by reference to the lectotype designated by Nijssen & Isbrücker, 1975, *Bull. zool. Nom.* vol. 32, p. 63 (Humboldt Museum, Berlin, No. ZMB 3149), is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2726.

HISTORY OF THE CASE Z.N.(S.)1950

An application from Dr H. Nijssen and Dr I.J.H. Isbrücker *(Zoölogisch Museum, Amsterdam)* for the replacement by a lectotype of the neotype that they had previously designated for *Cataphractus punctatus* Bloch, 1794, was first received on 7 December 1970. After some correspondence with the applicants, it was sent to the printer on 19 November 1974 and published on 27 March 1975 in *Bull. zool. Nom.* vol. 32, pp. 63–64. No use of the plenary powers was involved.

An objection by Professor Ernst Mayr was answered by the Secretary (*Bull. zool. Nom.* vol. 35, p. 198). No other comment was received.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule in Voting Paper (1980)3 for or against the proposal set out in *Bull. zool. Nom.* vol. 32, p. 63. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-one (21) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Bayer, Hahn, Kraus, Starobogatov, Sabrosky, Habe, Halvorsen, Nye, Alvarado, Binder, Cogger, Welch, Tortonese

Negative Votes – none (0)

Abstentions: Heppell, Dupuis

No voting papers were returned by Ride and Bernardi.

Mr Heppell commented: 'I abstain. I have no way of judging which specimen would be the better standard of reference for this nominal species.'

Professor Dupuis commented: 'Malgré mon souhait de supprimer un néotype inutile, je considère que nous n'avons pas encore la preuve – à la date du *Bulletin* vol. 35(4), 31 May 1979 – alors que Karrer "is recataloguing the collections of Bloch", de l'authenticité des spécimens retrouvés. Je m'abstiens jusqu'à publication du travail critique annoncé.'

ORIGINAL REFERENCE

The following is the original reference for a name placed on an Official List by the ruling given in the present Opinion:

punctatus, Cataphractus, Bloch, 1794, *Naturgeschichte der ausländischen Fische*, vol. 8, p. 90, pl. 377, fig. 2.

CERTIFICATE

I hereby certify that the votes cast on voting paper (80)3 were cast as set out above, that the proposal contained in that voting paper has been duly adopted, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1169.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
3 September 1980

XENOCREPIS FOERSTER, 1856 (HYMENOPTERA, CHALCIDOIDEA): PROPOSED DESIGNATION OF A TYPE SPECIES. Z.N.(S.)1437

By the Secretary, International Commission on Zoological Nomenclature

The present application arises out of a preliminary approach by Dr Oswald Peck (then of *Department of Agriculture, Entomology Research Institute, Ottawa, Canada*) in August 1959. His application was not published because he never presented it in final form. It is now presented on the advice of Dr Zdenek Bouček (*Commonwealth Institute of Entomology, London*), for whose advice I am grateful.

2. *Xenocrepis* Foerster, 1856 (*Hymen. Stud. Aachen* (2), p. 64) was proposed without any included species. Ashmead, 1904, *Mem. Carnegie Mus.* vol. 1, p. 276, was the first author to refer a species to the genus, and he then fixed *Caenocrepis arenicola* Thomson, 1878 (*Hymen. Skand.* vol. 5, p. 50) as type species, by subsequent monotypy. The effect of that fixation was to make the two generic names objective synonyms, for *C. arenicola* is the type species of *Caenocrepis*, by monotypy. Ashmead seems to have been in some confusion, for on p. 393 of his work he said that the type species of *Xenocrepis* was unknown. In effect, he seems to have acted as though he regarded *Caenocrepis* as an emendation or a misspelling of *Xenocrepis*. On p. 368 he said '*Caenocrepis* Thomson (= *Xenocrepis* Förster), *Hym. Skand.* V. 1875, p. 51 (Type *C. arenicola* Thomson)'. A further unfortunate effect of Ashmead's action was to transfer *Xenocrepis* to a different tribe from that intended by Foerster.

3. Ashmead's paper was published in January 1904. On 15 October 1904, Mayr (*Verh. zool.-bot. Ges. Wien*, vol. 54, Heft 8, 9, p. 584) placed his new species *X. pura* as the only species in *Xenocrepis*. This is not only consistent with Foerster's intention, based on his own original material, but has been accepted by nearly all subsequent authors, including:

Kurdjunov, 1913, *Rev. Russe Entomol.*, vol. 13, p. 6
Szelenyi, 1941, *Fragm. Faun. Hungar.*, vol. 4 (2), p. 40
[Baird], 1949, *Canad. Insect Pest Rev.* vol. 27, p. 276
Carlson, Lange & Sciaroni, 1951 (1952), *J. Econ. Entomol.*, vol. 44, p. 963
Peck, 1952, *in* Muesebeck *et al.*, *Agric. Monogr. U.S. Dept. Agric.*, no. 2, p. 556
McLeod, 1953, *Proc. entomol. Soc. British Columbia*, vol. 49, pp. 16–17

Ferrière, 1954, *in* Delucchi, *Bull. entomol. Res.*, vol. 45, p. 265
Bouček, 1957, *Klíč Zvířeny ČXR*, Prague, p. 239
Gahan, 1957, *in* Welz, *Ann. entomol. Soc. America*, vol. 50, p. 220
Graham, 1957, *Entomol. Mon. Mag.*, vol. 93, p. 235
Bouček, 1958, *Acta entomol. Mus. nat. Prague* vol. 32, p. 398
Graham, 1969, *Bull. brit. Mus. (nat. Hist.)* (Entomol.), Suppl. 16, p. 638.

4. Some of the above references refer to the economic importance of *X. pura* as a pest of the cabbage seed weevil. Bouček, 1958, treated *Caenocrepis* as a valid generic name but drew attention to the need for a Commission ruling on the type species of the genera involved. Only Gahan & Fagan, 1923, *Bull. U.S. nat. Mus.* vol. 124, p. 153, have suggested that a new genus should be proposed for *X. pura.* Other authors have paid more respect to Foerster's intention than to Ashmead's taxonomic error. If a separate genus is required for *X. pura*, which in the meantime has become a junior synonym of *Mesopolobus morys* (Walker, 1848) (see Graham, 1969, p. 653), *Disemiscus* Ghesquière, 1946, *Rev. Zool.-Bot. afric.* vol. 39, p. 369 is available.

5. Graham, 1969, in the latest authoritative monograph on this group, treats *Xenocrepis* as a synonym of *Mesopolobus* Westwood, 1833. If, however, the taxonomic concept represented by Foerster's name were again to be recognised, it would be better to use his well-established name for it than to adopt *Disemiscus.*

6. The Commission is accordingly asked

(1) to use its plenary powers to set aside all designations of type species hitherto made for *Xenocrepis* Foerster, 1856, and to fix *Xenocrepis pura* Mayr, 1904 as type species of that genus;

(2) to place the generic name *Xenocrepis* Foerster, 1856 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Xenocrepis pura* Mayr, 1904, on the Official List of Generic Names in Zoology;

(3) to place the specific name *morys* Walker, 1848, as published in the binomen *Pteromalus morys* (the valid senior specific synonym for the type species of *Xenocrepis* Foerster, 1856) on the Official List of Specific Names in Zoology.

REQUEST FOR A CHANGE IN ARTICLE 40 OF THE CODE Z.N.(S.)2250

By Marian H. Pettibone (*National Museum of Natural History, Washington D.C. 20560, U.S.A.*)

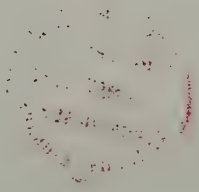
I am asking the International Commission on Zoological Nomenclature to seriously consider changing Article 40 of the Code concerning the conservation of a family-group name after 1960 and making it retroactive. A family-group name should reflect the name and meaning of the type genus. If the name of the type genus goes into synonymy, the family name should also be replaced, with the exception of a name long established in the literature and whose meaning is well understood. I cite the following case in Polychaeta as a basis for my objection to the rule.

In the NEREIDIDAE, *Micronereis variegata* Claparède, 1863 has long been considered to be an aberrant member of the family and referred to often in the literature because of its unique features. Four species were subsequently added to *Micronereis*.

Notophycus minutus Knox & Cameron, 1970 was placed in a new family NOTOPHYCIDAE. *Phyllodocella bodegae* Fauchald & Belman, 1972 was added to this family.

In a revisionary study on the species of *Micronereis*, Banse, 1977, Essays on Polychaetous Annelids, *Allan Hancock Foundation*, referred *Notophycus* and *Phyllodocella* to *Micronereis* and placed them in a subfamily NOTOPHYCINAE, with type genus *Micronereis* (syn.: *Notophycus*) following Article 40.

We now have a subfamily with the single genus *Micronereis* and eight species (according to a recent revisionary study by Hannelore Paxton). It is only logical that it should be called MICRONEREIDINAE, reflecting the well-known genus *Micronereis*, and not *Notophycus*, based on a misunderstanding of the diagnostic characters and not well-known.



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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 38, part 2 (pp. 77 - 152) 30 April, 1981

NOTICES

(a) *Date of commencement of voting.* In normal circumstances the Commission may start to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.* The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* (those marked with an asterisk involve the application of Articles 23a-b and 79b):

(1) *Tyrophagus* Oudemans, 1924 (Acarina): proposals to clarify name of the type species and to conserve name of an important pest species. Z.N.(S.) 1450. P.L.Robertson.

*(2) *Manati* Steller, 1774 and *Trichechus exunguis* Natterer *in* Diesing, 1839) (Mammalia, Sirenia): proposal to place names on Official Indexes of Rejected and Invalid Names in Zoology. Z.N.(S.) 2338. D.P.Domning.

(3) *Ledella* Verrill & Bush, 1897 (Mollusca, Bivalvia): proposed designation of type species. Z.N.(S.) 2238. A. Warén.

(4) *Nepa cinerea* Linnaeus, 1758 (Insecta, Heteroptera, Nepidae): proposed conservation. Z.N.(S.) 2144. I.M.Kerzhner.

(5) *Coccus* Linnaeus, 1758 and *Parthenolecanium* Šulc, 1908 (Insecta, Homoptera, Coccidae): proposed designation of type species. Z.N.(S.) 2125. E.M.Danzig & I.M.Kerzhner.

*(6) *Eutermes exitiosus* Hill, 1925 (Insecta, Isoptera): proposed conservation. Z.N.(S.) 2290. J.A.L.Watson & F.J.Gay.

(c) *Receipt of new applications.* The following new applications have been received since those notified in vol. 38(1) on 26 February 1981. That marked with an asterisk involves the application of Articles 23a-b and 79b.

(1) *Damalis planiceps* Fabricius, 1805 (Insecta, Diptera): request for designation of a type species. Z.N.(S.) 2369. K.G.V.Smith.

(2) *Alpheus lottini* Guérin, 1829 (Crustacea: Decapoda: Natantia): proposed conservation. Z.N.(S.) 2370. A.H.Banner & D.M.Banner.

(3) BAGRIDAE Bleeker, 1858 (Pisces): proposed conservation. Z.N.(S.) 2371. R.M.Bailey & D.J.Stewart.

*(4) *Alveolinella bontangensis* Rutten, 1913 (Protista: Foraminiferida) proposed conservation. Z.N.(S.) 2372 G.C.H.Chapronière.

SPECIAL ANNOUNCEMENT

An article by the Secretary, entitled "The International Commission on Zoological Nomenclature: its role in the modern world", was published in Biology International, The News Magazine of the International Union of Biological Sciences (I.U.B.S.), No 2, December 1980.

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R.V. MELVILLE
Secretary, International Commission on Zoological Nomenclature
March 1981

COMMENTS ON THE PROPOSAL ON *DACTYLOPIUS* AND *PSEUDOCOCCUS*, WITH ADDITIONAL PROPOSAL TO USE THE PLENARY POWERS FOR SUPPRESSION OF *COCCUS ADONIDUM* LINNAEUS, 1767 AND *PEDICULUS COFFEAE* LINNAEUS, 1767 AND FOR VALIDATION OF *DACTYLOPIUS LONGISPINUS* TARGIONI-TOZZETTI, 1867 (INSECTA: HOMOPTERA). Z.N.(S.) 2091

(see vol. 31, pp. 146–153)

(1) by E.M. Danzig and I.M. Kerzhner (*Zoological Institute, Academy of Sciences of the U.S.S.R., Leningrad*)

We give full support to all actions proposed by D.R. Miller. However, his conclusions on the identity of *Coccus adonidum* Linnaeus and *Dactylopius longispinus* Targioni-Tozzetti are borrowed from the work of De Lotto, 1965, which contains some inexactitude. Therefore several additional proposals should be made for stabilization of the current nomenclature in the genus *Pseudococcus*.

2. De Lotto, 1965, from partial study of the original descriptions concluded that: (1) *Coccus adonidum* Linnaeus is identical with the insect described by Ledermüller, 1762, as 'Koffeebaumlausz', that is to say *Pediculus coffeae* Linnaeus; (2) the insect described by Ledermüller is not the common long-tailed mealy-bug, therefore the name *Pseudococcus adonidum* (Linnaeus) cannot be used for this mealy-bug; (3) *Coccus adonidum* seems to be not even a coccid, because Ledermüller described the antennae as four-segmented (instead of eight-segmented) and the tarsus as having two claws (instead of one); (4) *Pseudococcus longispinus* (Targioni-Tozzetti) is the valid name under the Code for the common long-tailed mealy-bug. All these conclusions except (2) are inexact.

3. Linnaeus, 1746, p. 341, Geoffroy, 1762, p. 511, and Ledermüller, 1762, pp. 16–19, pl. 9, gave the first descriptions of coccids damaging introduced plants in greenhouses in Europe. Linnaeus and Ledermüller regarded these insects as lice and described the females only. Geoffroy discovered the males and correctly placed these insects among the coccids. A number of wrong statements and assumptions can be found in the description of Ledermüller but it is certain that his description and figures cannot be referred to any other insects than mealy-bugs.

4. Linnaeus, 1767, p. 740, briefly described under the name *Coccus adonidum* the insects formerly studied by him and by Geoffroy. After this description he adds 'Conf. Lederm. 1762. t. 9. *Pediculus coffeae*'. Here '*Pediculus coffeae*' is in fact rather a translation of 'Koffeebaumlausz' in Latin for reference but on the other hand it is formed as a binomina[1] name and can be regarded as such. The initial 'conf.' (abridged Latin 'conferre' – compare or 'confinis' – closely related) shows that Linnaeus regarded *Pediculus coffeae* as a species distinct from his *Coccus adonidum*. The reference to Ledermüller's work made the name *Pediculus coffeae* available.

5. Linnaeus, 1746, Geoffroy, 1762 and Ledermüller, 1762 mention that the females have a segmented body, distinct antennae and legs, the waxy secretion (named snow-white wool or cotton by old authors) forms angular

projections on the margin of the body and eggs are laid in special cocoons (ovisacs) formed by this wax. Such a combination of characters among all greenhouse coccids corresponds only to the genera *Pseudococcus* and *Planococcus* (formerly united under the first name).

6. Four species of these genera are known as polyphagous greenhouse pests in Europe. The peculiarities of the living females of three of these species are quoted from literature and those for the obscure mealy-bug are based on personal observations.

(1) Long-tailed mealy-bug (formerly named *Pseudococcus adonidum* L. but after the paper of De Lotto renamed as *P. longispinus* Targ.-Tozz.). Body elongate, green; caudal waxy formations extremely long (longer than the body). filamentous; viviparous.

(2) Citrophilous mealy-bug (formerly named *P. gahani* Green, 1915, but in recent years the name has been changed to *P. fragilis* Brain, 1912). Body elongate, crimson; caudal waxy formations twice as long and wide as the remaining ones, equal to one-third of the body length; a good distinguishing feature is the presence of four rows of impressed bare points extending lengthwise of the dorsum (Borchsenius, 1949, fig. 77; Ferris, 1950; McKenzie, 1967); egg laying.

(3) Obscure mealy-bug (*P. obscurus* Essig, 1909, formerly confused with the very similar *P. maritimus* Ehrhorn, 1900 and better known under the last name). Body elongate, pink to red; caudal waxy formations equal to from one-third to one half of the body length, filamentous; middle part of the dorsum not bare; egg laying.

(4) Citrus mealy-bug (*Planococcus citri* Risso, 1813). Body relatively shorter and wider than in other species, red or green; all waxy formations (18 in number) relatively short and the caudal ones not longer than or slightly longer than the remaining ones; middle part of the dorsum with a nearly bare longitudinal stripe; egg laying.

7. Linnaeus, 1746, mentioned the longitudinal rows of bare points typical for the citrophilous mealy-bug – two rows on each side ('margine punctis prominentibus utrinque circiter 14', 'spatium quod linea dorsali et margine laterali interjacet totidem punctis prominulis secundum longitudinem dispositis notatur'). His remark on the egg laying females ('folliculum sibi struit .... e lana nivea contectum, ultra quem .... ova flava includit'), on the caudal waxy formations ('cauda bifida') and on the body form ('corpus oblongum') are not inconsistent with the citrophilous mealy-bug. The raised longitudinal dorsal line in the description of Linnaeus seems to correspond to the slightly raised medial part of the body and is not evidence for identity with *Orthezia*, as was presumed by Cockerell, 1899. Geoffroy, 1762, described the body of the female as elongated, pink, wholly covered by wax, caudal waxy formations longer than the remaining ones and the eggs laid in a 'nest' similar to a flock of white cotton. This description might refer either to the citrophilous mealy-bug or to the obscure mealy-bug, but it should be noted that both Geoffroy and Linnaeus believed that they had the same species.

8. Ledermüller, 1762, figured 18 pairs of short waxy formations of nearly equal length; he described an impressed longitudinal line on the body which seems to be the bare longitudinal stripe; the colour is given as brown or brown-yellow; the laying of eggs in 'nests' from snow-white wool is described; the body is figured as relatively short. The description coincides well with the

citrus mealy-bug.

9. It follows from the above with reasonable certainty that *Coccus adonidum* equals the citrophilous mealy-bug (*Pseudococcus fragilis*) and *Pediculus coffeae* the citrus mealy-bug (*Planococcus citri*). Targioni-Tozzetti (1867) proposed for '*Coccus adonidum* auct.' a replacement name *Dactylopius longispinus*, but in fact he described the long-tailed mealy-bug. Subsequent authors, following Targioni-Tozzetti's concept, but not his nomenclature, used the name *adonidum* for the long-tailed mealy-bug.

10. When De Lotto discovered that *Coccus adonidum* was misidentified it would have been best to designate a neotype of *C. adonidum* under the plenary powers in concordance with the general usage of the name. However, this was not done and the name *P. longispinus* received general usage for the long-tailed mealy-bug. Now restoration of the name *adonidum* either for the citrophilous mealy-bug or long-tailed mealy-bug will bring confusion, thus we propose its suppression under the plenary powers.

11. *Pediculus coffeae* Linnaeus, 1767 was never used as a valid name. As the name is a senior synonym of the generally used *Planococcus citri* (Risso, 1813), we propose its suppression under the plenary powers.

12. *Dactylopius longispinus* Targioni-Tozzetti, 1867 was proposed as a replacement name for *Coccus adonidum* Linnaeus. Therefore according to Article 72d of the Code *Dactylopius longispinus* should be regarded as an objective synonym of *Coccus adonidum*, regardless of the fact that Targioni-Tozzetti's description refers to another species. In order to avoid further confusion in nomenclature of well known and economically important species we propose to designate under the plenary powers as neotype of *Dactylopius longispinus* the following specimen from the collection of the Zoological Institute, Academy of Sciences of the U.S.S.R., Leningrad: a female mounted on a slide and separated by a red circle from two other specimens on the same slide, with the following label – 'Moscow [USSR], Botanical garden of the Moscow State University [in Russian], 21. vii.52, on *Dracaena fragrans*' and with appropriate neotype label which will be added after the designation is approved. The neotype corresponds fully with the description of *Pseudococcus longispinus* (Targioni-Tozzetti) given by McKenzie (1967, pp. 303–5, fig. 119, col. pl. XVI). Nothing is known of the fate of Targioni-Tozzeti's collection of coccids and we presume it is lost. The specimens examined by Targioni-Tozzeti were most probably from Italy and the neotype is from Moscow, but as it is a species introduced in Europe, this geographical distinction is not important.

13. In accordance with the above we propose the following additions and emendations to the proposal of Miller.

(1) add the following points:–

(e) to suppress the specific names *adonidum* Linnaeus, 1767, as published in the binomen *Coccus adonidum* and *coffeae* Linnaeus, 1767, as published in the binomen *Pediculus coffeae* for the Law of Priority but not for the Law of Homonymy.

(f) to designate as neotype of *Dactylopius longispinus* the specimen mentioned above.

(7) Before 'on the Official List', add the following 'as defined by the neotype designated under the plenary powers in 1(f) above.'

(10) Place the specific names *adonidum* Linnaeus, 1767, as published

in the binomen *Coccus adonidum* and *coffeae* Linnaeus, 1767, as published in the binomen *Pediculus coffeae* and as suppressed at (1)(e) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.

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(2) Reply by Douglass R. Miller

The comment by Danzig & Kerzhner significantly improves my application on *Dactylopius* and *Pseudococcus*. In particular, their proposal to designate a neotype of *Dactylopius longispinus*, the type species of *Pseudococcus*, would stabilise the identity of that species.

(2) I am not certain of the identities of *Coccus adonidum* Linnaeus and *Pediculus coffeae* Linnaeus. Danzig & Kerzhner give good circumstantial evidence supporting their belief that these are respectively senior synonyms of *Pseudococcus calceolariae* (Mask.) (= *P. fragilis* Brian) and *Planococcus citri* (Risso), but some of the discrepancies pointed out by De Lotto, 1965, cause concern. Furthermore, because *P. calceolariae* is apparently of Australian origin, it is doubtful if Linnaeus could have seen it. However, the suppression of *C. adonidum* and *P. coffeae* as suggested by Danzig & Kerzhner will solve the problem whether they or De Lotto are right.

(3) I am, however, concerned about the specimen that they propose for designation as neotype of *D. longispinus*. According to Article 75c(5), a Moscow specimen could indeed only be designated as neotype by the use of the plenary powers, because the type locality must almost certainly have been in Italy. At the U.S. National Museum there are 28 slides of *P. longispinus* from Italy, so clearly the species is not uncommon in that country. It seems clear to

me that, since Targioni-Tozzetti's original material is lost, an Italian specimen could be designated as neotype without recourse to the Commission.

(4) Thanks to Dr. E. Tremblay of the Istituto di Entomologia Agraria, Portici, Naples, Italy, I have received 10 slides, each containing one specimen of *Dactylopius longispinus* Targioni-Tozzetti from *Cycas revoluta* growing in the Botanical Gardens in Florence 29 October, 1979. I here designate a specimen from this series as neotype and have marked the slide as such. It is very probable that Targioni-Tozzetti collected from this locality. The neotype is deposited at the Portici Institute. Other specimens from the material provided by Dr. Tremblay will be deposited in (1) Florence, (2) British Museum (Natural History) London, (3) United States National Museum, Washington, D.C. (4) Muséum National d'Histoire Naturelle, Paris, (5) University of California, Davis, (6) Pretoria, South Africa, (7) Zoological Institute, Academy of Sciences, Leningrad, (8) Virginia Polytechnic Institute, Blacksburg and (9) Mexico City.

(5) In their paragraph 12, Danzig & Kerzhner state that *Dactylopius longispinus* was proposed as a replacement name for *Coccus adonidum* Linnaeus. Actually Targioni-Tozzetti realised that *C. adonidum* was mis-identified by most authors, who were dealing with a species different from the one described by Linnaeus. *D. longispinus* is therefore a name for a previously undescribed species, not a replacement name, and Article 72d is inappropriate. I accordingly propose to amend Danzig & Kerzhner's proposals as follows:

(1)(f) delete.

(7) read 'place the specific name *longispinus* Targioni-Tozzetti as published in the binomen *Dactylopius longispinus* and as interpreted by reference to the neotype designated in paragraph 4 of this note (specific name of type species of *Pseudococcus* Westwood, 1840 by designation under the plenary powers in (1)(d) above) on the Official List of Specific Names in Zoology'.

COMMENTS ON THE PROPOSED DESIGNATION OF A TYPE SPECIES FOR *GNATHODUS* PANDER, 1856 (CONODONTA). Z.N.(S.)2279

(see vol. 36, pp. 57–62, 201–202; vol. 37, p. 67)

(1) by H. Kozur (*Staatliche Museen Meiningens, Schloss Elizabethenburg, Meiningen, DDR*). See also comment (3)

In recent years Alekseev (lecture to the 1975 Congress on Carboniferous Stratigraphy in Moscow), Kozur & Mostler, 1976, Barskov, Alekseev & Goreva, 1977, and Lane & Ziegler, 1979, have discussed the taxonomic status of *Gnathodus* Pander, 1856. The conclusions of Alekseev, 1975, Kozur & Mostler, 1976, and Barskov, Alekseev & Goreva, 1977, are nearly identical. They proposed to use *Dryphenotus* Cooper, 1939, for the Lower Carboniferous GNATHODIDAE of the *'Gnathodus' semiglaber – 'G.' bilineatus* and *'G.' girtyi* groups because the Upper Carboniferous type species of *Gnathodus, G. mosquensis* Pander, 1856, is certainly not congeneric with those Lower Carboniferous forms. Barskov, Alekseev & Goreva, 1977, proposed to restrict *Gnathodus* to *G. mosquensis* and regarded that name as a *nomen dubium*. They suggested that future studies might demonstrate the identity of *Gnathodus* with *Streptognathodus* Stauffer & Plummer, 1932 or *Idiognathodus*

Gunnell, 1931. Kozur & Mostler, 1976, regarded *Streptognathodus* as a junior synonym of *Gnathodus* and suggested that *S. cancellosus* (Gunnell, 1931) might be a junior synonym of *G. mosquensis* (they did not, as Barskov, Alekseev & Goreva, 1977, and Lane & Ziegler, 1979, wrongly state, positively affirm that synonymy), because the only platform conodonts in the Dorogomilov horizon (from which the type material of *G. mosquensis* came) are *S. cancellosus* and *S. oppletus* Ellison, 1941, and the latter cannot be compared with *G. mosquensis*. Barskov, Alekseev & Goreva, 1977, did not include *S. cancellosus* in *Streptognathodus*, but this view is not accepted by any other conodont workers.

Lane & Ziegler, 1979, expressed quite different conclusions on the taxonomic status of *Gnathodus*. They proposed that *G. texanus* Roundy be designated as a new type species of *Gnathodus* and that the genus be restricted to Lower Carboniferous species. This is quite unwarranted and its acceptance would set up a precedent against the Code for the following reasons:

(1) as clearly shown by Barskov, Alekseev & Goreva, 1977, the type material of *G. mosquensis* came from the Dorogomilov Horizon of Upper Carboniferous (Kasimovian) age. A Lower Carboniferous age is quite impossible in the context of the geology of this region;

(2) the opinion of Lane & Ziegler, 1979, that *Gnathodus* 'has always been thought to be dominantly Lower Carboniferous in age' is not correct. Until recently *Gnathodus* was used for a wide range of Lower, Middle and Upper Carboniferous, and even for Permian Gnathodidae. Because conondont-bearing beds are much more widely distributed in the Lower Carboniferous than in the Middle Carboniferous-to-Permian, there are many more papers on Lower Carboniferous conodonts (including '*Gnathodus*') than on Middle Carboniferous-to-Permian ones. But the percentage of papers on Middle Carbniferous-to-Permian conodonts in which *Gnathodus* is mentioned is very high. In recent years, many Lower Carboniferous species of *Gnathodus* have been transferred to *Protognathodus* Ziegler, 1969, and *Paragnathodus* Higgins, 1975, and many new genera have also been introduced for the Middle Carboniferous-to-Permian forms. Even so, *Gnathodus* has been used frequently in the last 10 years for Middle Carboniferous-to-Permian GNATHODIDAE, e.g.:

Lane, Merrill, et al., 1971 (Middle and Upper Carboniferous): *G. basslieri* (Harris & Hollingsworth, 1933), *G. bassleri symmetricus* Lane, 1967, *G. roundyi* Gunnell, 1931, *G. noduliferus* (Ellison & Graves, 1941), *G. dilatus* Stauffer & Plummer, 1932, and a 'Pennsylvanian *Gnathodus* lineage' (p. 376);

Rabe, 1977 (Middle Carboniferous to Permian): *G. bassleri, G. bassleri symmetricus, G. bucaramangus* Rabe, 1977, *G. lateralis* (Higgins & Bouckaert, 1968, *G. noduliferus, G. roundyi, G. whitei* (Rhodes, 1963);

Requadt, Becker et al., 1977 (Middle Carboniferous): *G. bassleri symmetricus;*

Wang, 1978 (Permian): *G. hanzhongensis* Wang, 1978.

(3) Lane & Ziegler's argument that the future application of *Gnathodus* to Lower Carboniferous GNATHODIDAE would preserve nomenclatural stability in both palaeontological and stratigraphical literature is wrong. Collin-

son, Rexroad & Thompson, 1971 (table 1) used *Gnathodus* in only seven, not eight, of the major stratigraphic subdivisions. Moreover, two of those species (*G. kuehni* and *G. kockeli*) belong to *Protognathodus* Ziegler, 1969 and the others must be placed in *Dryphenotus* Cooper, 1939. Lane, Merrill, *et al.*, 1971, used *Gnathodus* seven times for major subdivision of the Pennsylvanian (Middle and Upper Carboniferous). Most of these species can now be placed in *Neognathodus* Dunn, 1970.

(4) In both the Lower and the Middle-Upper Carboniferous most GNATHODIDAE have until recently been placed in *Gnathodus* and in both cases they were used to name stratigraphical subdivisions. We cannot therefore choose as the new type species a Lower Carboniferous species that certainly does not belong in the same genus as the original type species, the Upper Carboniferous *G. mosquensis.*

We therefore ask the Commission to reject Lane & Ziegler's proposals. In the present state of knowledge, *Gnathodus* must be rejected as a *nomen dubium* unless a new type species is designated from the type horizon in the type area (Dorogomilov Horizon, Kasimovian). In the latter case *Streptognathodus* Stauffer & Plummer, 1932, which contains the only platform species of that horizon, would fall as a junior synonym of *Gnathodus.*

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(2) By H.R. Lane and W. Ziegler

Dr. Kozur stated that he does not agree with our request to the Commission concerning *Gnathodus mosquensis*, type species of the conodont genus *Gnathodus*, for the following reasons:

1. The type material of *Gnathodus mosquensis* Pander, 1856 is from the Dorogomilov Horizon of Upper Carboniferous (Kasimovian Stage) and thus cannot be Lower Carboniferous in age.

2. *Streptognathodus cancellosus* (Gunnell) is the only species occurring in the Dorogomilov Horizon that is similar to Pander's illustrations of *Gnathodus mosquensis* and therefore probably is conspecific with the latter taxon.

We are asking the Commission to exercise its plenary powers to set aside all designations of type species hitherto made for the nominal genus *Gnathodus* Pander, 1856, and having done so, to designate *Gnathodus texanus* Roundy, to be the type species of that genus. We are proposing *Gnathodus texanus* Roundy (1926, p. 12, pl. II, figs. 7a–8b), not its junior secondary homonym *Polygnathus texanus* Roundy (1926, p. 14, pl. III, figs. 13a–13b) to be the new type species. (The valid name for this latter species is *Gnathodus bilineatus* (Roundy, 1926) by the action of Hass, 1953, p. 79.)

Our request is made in the interest of nomenclatural stability. The massive nomenclatural changes that will be necessary if a neotype is selected from the Kasimovian Stage will create much confusion in conodont paleontology and stratigraphy. We asked the Commission to approve our request for the following reasons:

1. The morphologic details necessary for establishing the affinities of *Gnathodus mosquensis* Pander, 1856, type species by monotypy of the conodont genus *Gnathodus*, are unavailable. Attempts to establish these morphologic details have been frustrated because:

a. The primary types of the species are lost (Barskov, Alekseev & Goreva, 1977; 1978) and to our knowledge no specialist, other than the original author, has ever studied them.

b. The primary types were probably embedded in rock in such a manner that the views available allowed, at best, a family level identification. We suggest this based on Pander's original illustrations.

2. The *locus typicus* and *stratum typicum* are unknown and will never confidently be determined. Thus, selection of a neotype from topotypic collections is impossible.

Barskov, Alekseev & Goreva (1977, p. 132; 1978, p. 518) suggested that the type horizon of *Gnathodus mosquensis* was the Dorogomilov Horizon of the Kasimovian Stage (upper Upper Carboniferous in western European literature and Upper Carboniferous in the Russian literature). This suggestion was based on their belief that the type collection derived from strata exposed *at* the Dorogomilovskaya Gate at the time of Pander's study. These beds are no longer exposed, being buried beneath the city of Moscow. However, geologic maps referred to by Barskov, Alekseev & Goreva (1977; 1978) show the gate to be located within the belt of land corresponding to the subcrop of the Dorogomilov Horizon. However, Pander (1856, p. 34, p. 83) clearly stated that the primary types came from *behind* the Dorogomilovskaya Gate. One may wonder how far past the gate Pander's *stratum typicum* was. This, of course, will never be known, but, certainly Pander's statement does not restrict the *stratum typicum* to within the Dorogomilov Horizon. For this reason, we question that the Dorogomilov Horizon contains the type horizon of *Gnathodus mosquensis.*

Dr. Kozur misleads the reader when he states that *Streptognathodus cancellosus* is the only species occurring in the Dorogomilov Horizon that could be conspecific with *Gnathodus mosquensis.* Barskov, Alekseev & Goreva (1977, p. 133; 1978, p. 520) note that *Streptognathodus excelsus* Stauffer & Plummer occurs both above and below, but to date is not known to occur within the Dorogomilov Horizon. There is no reason why *S. excelsus* could not occur at that stratigraphic level. *Streptognathodus excelsus,* as well as *S. cancellosus* and many other Lower and Upper Carboniferous conodonts, cannot be distinguished from *Gnathodus mosquensis* based on Pander's original description and illustrations. This problem is compounded by the uncertainty surrounding whether the Dorogomilov Horizon, in fact, contains the *stratum typicum.*

The term 'horizon' is used in the Russian geological literature in approximately the same manner as 'formation' is used in western European and North American geological literature. Thus, the Dorogomilov Horizon is a sequence of rocks of substantial thickness, not just a planar surface as suggested by the English word. Because of this, reference to the Dorogomilov Horizon as being the '*stratum typicum*' may be misleading to the reader.

It should also be noted here that the Upper Carboniferous of western Europe is divided into Middle and Upper Carboniferous in Russian literature. Kozur follows Russian practice, whereas we follow western European convention. The Kasimovian Stage, for example, is Upper Carboniferous of Russian literature but would be upper Upper Carboniferous in western Europe.

Dr. Kozur correctly points out that he had only provisionally treated *Streptognathodus cancellosus* as a junior synonym of *Gnathodus mosquensis.* His provisional synonymy did not prevent him from treating all forms formerly assigned to *Streptognathodus* as belonging in *Gnathodus* (see Kozur & Mostler, 1976), nor did it keep him from assigning all forms in the Lower Carbonifer-

ous previously treated as *Gnathodus* to *Dryphenotus* Cooper (see Kozur & Mock, 1977). In addition, he has named at least two new species of *Gnathodus* that in the currently accepted taxonomy belong in *Streptognathodus* (see Kozur & Mostler, 1976). Thus, it seems to us that Dr. Kozur indeed has made up his mind, albeit on circumstantial evidence. It was also stated that the Lane & Ziegler (1979) proposal would produce a precedence against the rules of the ICZN. Provisions for our proposal are clearly included in Article 79 of the Code. The second sentence (p. 87, 1964 edition) of that article states: 'For the purpose of preventing such disturbance and of promoting a stable and universally accepted nomenclature, it (the Commission) may, under these plenary powers, annul or validate any name, type designation, or other published nomenclatural act, or any publication, and validate or establish replacements.'

The following are our comments on Dr. Kozur's numbered points:

1. We agree with Dr. Kozur that a Lower Carboniferous age for the type collection of *Gnathodus mosquensis* is unlikely. This historical misinterpretation of the *stratum typicum* of *Gnathodus mosquensis* stems from Pander's original statement that the primary types came from the lowest part of the Bergkalk (= Mountain Limestone of Lower Carboniferous age in England). We now know this to be almost certainly wrong. However, we do not agree with Dr. Kozur's unqualified acceptance of the Dorogomilov Horizon as the stratigraphic level of derivation of the primary types of *Gnathodus*. We believe that the correct horizon will never be known with certainty because Pander's original statement – behind the 'Dragomilowschen Sastawa' – is not sufficiently precise (see above discussion). This uncertainty casts much doubt that *Streptognathodus cancellosus* is in fact conspecific with *Gnathodus mosquensis*.

2. Kozur takes exception to our statement that *Gnathodus* has always been considered dominantly Lower Carboniferous in age. By this we meant that the main evolutionary 'flowering' of *Gnathodus* took place in the Lower Carboniferous. The final members of the gnathodid lineage as interpreted in its broadest sense (= *Gnathodus roundyi* and *Gnathodus dilatus* – both assigned to *Neognathodus* in modern nomenclature) became extinct near the top of the Moscovian (Middle Carboniferous) (Kozitskaya, Kossenko, Lipniagov & Nemirovskaya, 1978). Stratigraphically, this is a half a stage below the Dorogomilov Horizon.

We do not believe that Dr. Kozur can demonstrate the great ['very high'] percentage of Upper Carboniferous (post-Moscovian) and Permian literature giving occurrences of *Gnathodus* in its traditional sense. The Permian forms referred to by Dr. Kozur have never seriously been considered members of the genus *Gnathodus* by most conodont specialists. All of the species of Middle Carboniferous into Permian *Gnathodus* listed by Kozur, except for *Gnathodus whitei* (Rhodes) and *Gnathodus hanzhongensis* Wang, are Middle Carboniferous in age and predate the Kasimovian. To our knowledge, Rabe (1977) is the only author to have placed the early Permian species *Spathognathodus whitei* Rhodes, 1963 in the genus *Gnathodus*. Kozur (1978, p. 104 pl. 3, figs. 8, 9), himself, assigns it to *Sweetognathus* in conformity with the view of most modern conodont specialists. *Gnathodus hanzhongensis* Wang is clearly a representative of *Sweetognathus* and probably is the junior

synonym of *Sweetognathus merrilli* Kozur. All of the other Middle Carboniferous species of *Gnathodus* listed by Dr. Kozur, although regarded as belonging under the umbrella of the gnathodid lineage, can be assigned to either *Neognathodus* Dunn or *Declinognathodus* Dunn.

3. In Dr. Kozur's point about *Gnathodus* being used seven times for major subdivisions of the Pennsylvanian, the species utilized are the same as the ones mentioned in paragraph number 2 of his reply and all of them, except for those we noted, are Middle, not Upper Carboniferous in age and thus predate by at least one-half of a stage the Dorogomilov Horizon of the Kasimovian Stage.

4. Again we agree with Dr. Kozur that *Gnathodus* has been used in both the Lower and Upper Carboniferous for stratigraphical subdivisions, but those used in the Upper Carboniferous have been reassigned to *Neognathodus* and *Declinognathodus* by most modern specialists. These Upper Carboniferous occurrences of the genus significantly predate the Kasimovian Stage, the stage from which the types of *Gnathodus mosquensis* are reported to have derived.

In summary, we do not agree with Dr. Kozur because:

1. The primary types of *Gnathodus mosquensis* are irretrievably lost.

2. The morphologic details necessary for its unequivocal identification are not, and never will be, available.

3. Pander's original description of the *locus typicus* and *stratum typicum* are not precise enough for their confident determination.

4. Traditional taxonomy of the gnathodids has centred around Lower, rather than Upper, Carboniferous forms.

Therefore, in the interests of nomenclatural stability, we once again request that the Commission exercise its plenary powers provided for in Article 79 of the Code in order to void *Gnathodus mosquensis* Pander 1856 as the type species of the conodont genus *Gnathodus* and to designate the next younger species of the genus, *Gnathodus texanus* Roundy, 1926, as the new type species.

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(3) By H. Kozur

Lane & Ziegler now agree that the type species of *Gnathodus, G. mosquensis* Pander, 1856, must have come from the Upper Carboniferous and that species of *Gnathodus* have been used to denote stratigraphic subdivisions in both the Lower and Upper (Middle–Upper in the threefold classification) Carboniferous.

Taking these points of agreement into account, as well as the fact that at least as many post-Lower Carboniferous as Lower Carboniferous species have been originally described in *Gnathodus*, the choice of a Lower Carboniferous type species (as proposed by Lane & Ziegler) can never be in the interest of nomenclatural stability. This is the more true because all post-Lower Carboniferous gnathodid genera are absent from the Lower Carboniferous, and all the Lower Carboniferous gnathodid genera are absent from later strata.

If either a neotype were designated for *G. mosquensis,* or a new type species were fixed for *Gnathodus*, this taxon must occur in the Kasimovian (Upper Carboniferous) of the type area. The choice of a Lower Carboniferous type species would be contrary to the basic principles of the Code (Article 75).

Lane & Ziegler have misinterpreted Pander's statement on the type horizon. He wrote '... der untersten Schichten des Bergkalks im Tulaschen und der höheren des Moskauischen Gouvernements...'. As the holotype came from Moscow, there is no possible doubt that it came from the upper 'Bergkalk', which is clearly younger than the Lower Carboniferous.

Whether the holotype was collected *at* the Dorogomilskaja Zastawa or *beyond* it, the age would still be Kasimovian (Upper Carboniferous). Pander would not have written 'beyond the Dragomilowschen Zastawa' (today the Dorogomilskaja Zastawa) if the locality were some tens of kilometers beyond it, but even then the type horizon would undoubtedly be post-Lower Carboni-

ferous. Barskov *et al.*, 1977, have more experience of the geology of this area than Lane & Ziegler can have.

Some of the arguments put forward by Lane & Ziegler are incorrect:

(1) I opposed their proposal because of four major mistakes in their argumentation. In fact, their second point, which was not included in those four, can also be used as an argument against their proposal.

(2) Lane & Ziegler note that *Streptognathodus excelsus* is present both below and above the Dorogomilov Horizon, and could therefore be found by further studies also within that horizon. This is true; but it seems illogical to suppose that Pander, using the primitive methods of the mid-nineteenth century, could have found a species not detected until now by Soviet colleagues using modern methods of conodont extraction. On the other hand, the occurrence of a different *Streptognathodus* species within the type formation of *G. mosquensis* would confirm my view that *Streptognathodus* is really a junior synonym of *Gnathodus*.

(3) In my first comment on Lane & Ziegler's proposal I said '... the percentage of papers on Middle Carboniferous-to-Permian conodonts in which *Gnathodus* is mentioned is very high'. By this I meant to show that Lane & Ziegler's view that *Gnathodus* is used almost exclusively in the Lower Carboniferous literature is incorrect. *Gnathodus* is mentioned in many post-Lower Carboniferous (Middle Carboniferous to Permian) papers. I did not say only Upper Carboniferous (i.e. post-Moscovian) as incorrectly quoted by Lane & Ziegler. There is no reason to choose a Lower Carboniferous type species for *Gnathodus*, instead of the Upper Carboniferous original type species.

(4) Lane & Ziegler said that the Middle Carboniferous gnathodids predate the Upper Carboniferous Kasimovian (generally they include the Middle Carboniferous of East European authors in the Upper Carboniferous, following the American twofold division of the Carboniferous into Mississippian and Pennsylvanian). They did not say not only that these gnathodid species also postdate the Lower Carboniferous, but also that the Middle Carboniferous (Bashkirian, Moscovian) gnathodid species belong to quite different genera from all Lower Carboniferous gnathodids. On the other hand, all Middle Carboniferous genera that can be compared with *G. mosquensis* occur also in the Upper Carboniferous, at least in the Kasimovian. Lane & Ziegler propose a type species from a different geological age and a different species-group within the GNATHODIDAE than that represented by *G. mosquensis*. This cannot be in the interests of nomenclatural stability and would create a precedent against the basic principles of the Code (Article 75).

(5) According to Lane & Ziegler, all the *Gnathodus* species mentioned in my first comment except for *G. whitei* (Rhodes) and *G. hanzhongensis* Wang are of Middle Carboniferous age, but in fact *G. sicilianus* Bender & Steppel and *G. bucaramangus* Rabe are Permian species. On the other hand, all the Middle Carboniferous species listed belong to genera that are absent from the Lower Carboniferous.

In summary, Lane & Ziegler's proposal should be rejected for the following reasons:

(a) It is clear that Pander's type of *G. mosquensis* came from the Upper Bergkalk, which can never be of Lower Carboniferous age (including Serpukhovian = Lower Namurian). In the time interval of the Upper Bergkalk (maximum extent Moscovian to Sakmarian, but in the whole type area clearly

Upper Kasimovian) gnathodids are very frequent and many samples of that time interval from the type area yield only gnathodids and the component conodonts of the same apparatus.

(b) The number of post-Lower Carboniferous species originally assigned to *Gnathodus* is at least as large as the number of Lower Carboniferous species. Both groups were used to denote stratigraphical subdivisions.

(c) Both these groups of species originally placed in *Gnathodus* are now distributed among several genera.

(d) All Lower Carboniferous (including Serpukhovian = Lower Namurian) gnathodid genera are absent in the post-Lower Carboniferous, and no post-Lower Carboniferous gnathodid genus is known in the Lower Carboniferous. Hence, if *Gnathodus* were defined by reference to a Lower Carboniferous type species, as proposed by Lane & Ziegler, the genus would be quite different in age and taxonomic content from the original genus, and more than half the species originally proposed in *Gnathodus* (including the type species) would be excluded from the genus.

(e) Nomenclatural stability would best be served by referring the Lower Carboniferous gnathodids to *Dryphenotus* Cooper, 1939, *Paragnathodus* Higgins, 1975, and *Protognathodus* Ziegler, 1969. None of these occurs in the Upper Bergkalk.

(f) Whether a neotype is designated for *G. mosquensis*, or whether a new type species is designated for *Gnathodus*, that genus must be based on material of Kasimovian age. A new Lower Carboniferous type species would be contrary to the Code (see above).

(4) By I.S. Barskov (*Palaeontological Institute, Academy of Sciences, Maronovskii 26, 117049 Moscow V-49, USSR*)

Those participating in an All-Union meeting on Carboniferous conodonts (Moscow, April 1980) discussed Lane & Ziegler's proposal and new data provided by Alekseev on the type locality and horizon of *Gnathodus mosquensis* Pander, 1856. They examined new conodonts found at this locality and agreed that:

(1) The problem of the present status of *Gnathodus* presents no threat to stability of conodont nomenclature. It can be solved by applying the Code without the use by the Commission of its plenary powers.

(2) The basis of Lane & Ziegler's proposal is unsatisfactory:

(a) frequency of use of a name in stratigraphic contexts is no basis for the use of the plenary powers. Normal taxonomic practice leads to frequent changes of generic names. Some Lower Carboniferous species first described in *Gnathodus* are now placed in other genera (*Paragnathodus*, *Protognathodus*, etc.). At least two genera (*Dryphenotus* Cooper, 1939 and *Harltonodus* Elias, 1961) exist for the group of species from which Lane & Ziegler have chosen the one that they propose as type species. There are no taxonomic reasons not to apply those names, which will undoubtedly be used in further taxonomic studies of Lower Carboniferous conodonts;

(b) Lane & Ziegler's assertions of the uncertain type horizon of *G. mosquensis* are not quite correct. Further research will show

either that it is possible to identify that species or the necessity to designate a neotype for it. This is a matter of time.

The participants in the All-Union meeting decided to submit their arguments against Lane & Ziegler's proposal in the autumn of 1980. This paper is being prepared by Barskov and Alekseev and will be supported by all Soviet conodontologists. Meanwhile, Academician O.S. Vjalov and Drs Alekseev, Khalymbadzha, Kononova, Goreva and Starostina join me in asking the Commission to defer a decision on Lane & Ziegler's proposal.

COMMENT ON THE PROPOSED AMENDMENTS TO THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE REGARDING ICHNOTAXA. Z.N.(S.)1973

(see *Bull. zool. Nom.* vol. 36, pp. 11–14; vol. 37, pp. 6–10)

By G. Hahn (*Fachbereich Geowissenschaften, Universitätsgebiet Lahnberge, Marburg/Lahn, BRD*)

In *Bull. zool. Nom.* vol. 37, pp. 6–10 Drs Bromley and Fürsich commented on the proposals to introduce rules governing names of ichnotaxa into the Code. They discuss all the aspects that are favourable to this proposal. Let me now make one or two adverse remarks.

The first comment concerns the uniformity of zoological taxonomy. Up till now we have had only one taxonomy, applicable to all groups of animals, recent as well as fossil. Now we are discussing the introduction of ichnotaxa, and also of parataxa for special groups of fossils. If this tendency continues we shall perhaps end up with a special taxonomy for domestic animals, another for protozoa, others for ichnotaxa and parataxa, and so on. The Animal Kingdom will then be split into several taxonomically independent units and its homogeneity will be endangered. This is a very real apprehension: Bromley & Fürsich at the end of their comment unequivocally demand the independence of ichnotaxonomy from 'orthotaxonomy', the two not competing in priority.

Secondly, we do not have exact definitions for either ichnotaxa or parataxa. What will be the status of the impression of a fossil medusa in future? Is it an impression of a normal fossil (thus entering into 'orthotaxonomy') or is it a resting trace (thus entering into ichnotaxonomy)? Some specialists will prefer the first interpretation, others perhaps the second one. The introduction of ichnotaxa and parataxa will thus not help to stabilise nomenclature but the reverse. Uncertainty as to which taxonomy to use will endanger the uniformity of our taxonomic base. I should therefore prefer to renounce the attempt to regulate ichnotaxonomy and parataxonomy by the Code. If this cannot be achieved, we should at least try to preserve the priority of 'orthotaxonomy' over ichnotaxonomy and parataxonomy.

Reply by the Secretary, International Commission on Zoological Nomenclature

Professor Hahn's disquiet at the proposals concerning ichnonomenclature and paranomenclature is understandable. The Commission must, however, face the fact that parallel taxonomies, reflected in parallel nomenclatures,

exist in a number of groups where particular parts or organs can be classified and named, but where there is a mismatch between their taxonomy and nomenclature on the one hand, and the 'orthotaxonomy' and 'orthonomenclature' of the animals themselves. The Code at present provides for these cases, not on a general basis or group by group, but name by name: the Law of Priority applies where a part of an animal, or (before 1931) the work of an animal is named before the animal itself. But if a given part or a given work relates indiscriminately to several 'orthotaxa', then, even though that part or work can be classified only in its own taxonomy, its name must either be forced into the nomenclature of the animals themselves (even though it cannot be known to which of several species or genera it corresponds), or it must take the name of some species or genus of animals given an equal state of ignorance. This is insupportable on both logical and pragmatic grounds.

The Commission's proposals therefore seek to deal with a situation that already exists (and, in the case of paranomenclature, since long before the 1905 *Règles* were written); they seek to remove the anomaly whereby names proposed in ichnonomenclature before 1931 are available, but not those proposed after 1930; and they seek to provide orderly channels of communication between specialists using these nomenclatures and those using 'orthonomenclature'. They should also help the scientist who has to use all three (or any two of them) in particular areas of his work.

OPINION 1170

SATURNIIDAE BOISDUVAL, 1837 (LEPIDOPTERA) PLACED ON OFFICIAL LIST

RULING. – (1) Under the plenary powers it is hereby ruled that the specific name *pyri* [Denis & Schiffermüller], 1775, as published in the binomen *Bombyx pyri*, is to be given nomenclatural precedence over the specific name *major* Linnaeus, 1758, as published in the combination *Phalaena (Bombyx) pavonia major* whenever the two names are considered as synonyms.

(2) The generic name *Saturnia* Schrank, 1802 (gender: feminine), type species, by subsequent designation by Grote, 1895, *Bombyx pyri* [Denis & Schiffermüller], 1775, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2111.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the endorsements and Name Numbers specified:

(a) *pyri* [Denis & Schiffermüller], 1775, as published in the binomen *Bombyx pyri*, ruled under the plenary powers in (1) above to have nomenclatural precedence over the specific name *major* Linnaeus, 1758, as published in the combination *Phalaena (Bombyx) pavonia major*, whenever the two names are regarded as synonyms (Name Number 2727).

(b) *major* Linnaeus, 1758, as published in the combination *Phalaena (Bombyx) pavonia major*, ruled by the decision taken under the plenary powers in (1) above as not to be used in place of the specific name *pyri* [Denis & Schiffermüller], 1775, as published in the binomen *Bombyx pyri*, whenever the two names are regarded as synonyms (Name Number 2728).

(4) The family name SATURNIIDAE Boisduval, 1837 (type genus, *Saturnia* Schrank, 1802) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 507.

(5) The entry for Name Number 142 on the Official List of Family-Group Names in Zoology (ATTACIDAE) is to be amended as follows: for 'Burmeister, 1878' read 'Duponchel, 1844'.

HISTORY OF THE CASE Z.N.(S.)1997

An application for the reinstatement of SATURNIIDAE as the name for the family containing the two subfamilies SATURNIINAE and ATTACINAE was first received from Dr. C.W. Sabrosky and Dr. D.C. Ferguson (*Systematic Entomology*

Laboratory USDA, Washington D.C. 20560) on 28 February 1972. After some correspondence, it was sent to the printer on 16 May 1975 and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 149–152. No use of the plenary powers was involved. The proposed type-species designation for *Saturnia* was criticised by Nye, Fletcher & Watson, *Bull. zool. Nom.* vol. 33, pp. 137–139, and the whole application was opposed by Lemaire (*ibid.*, pp. 139–142). A further comment by Dr R.S. Peigler (*Texas A & M University*) on the type-species designation (*Bull. zool. Nom.* vol. 35, p. 7) was supported by Monsieur Lemaire (*ibid.* pp. 7–8) and answered by Nye, Fletcher & Watson (*ibid.*, pp. 8–9). No other comments were received, but Dr Sabrosky exercised his right of reply to Monsieur Lemaire in *Bull. zool. Nom.* vol. 35, p. 199.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule for Voting Paper (1980)4 either (A) for the original proposals set out in *Bull. zool. Nom.*, vol. 32, p. 152, or (B) for the revised proposals set out in *Bull. zool. Nom.*, vol 35, pp. 8–9. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

For Alternative A – five (5) votes: Starobogatov, Alvarado, Tortonese, Welch, Dupuis

For Alternative B – eighteen (18) votes received in the following order:
Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Bayer, Kraus, Hahn, Sabrosky, Habe, Halvorsen, Nye, Binder, Cogger, Bernardi

No voting papers were returned by Heppell and Ride.

The following comments were returned by members of the Commission with their voting papers:

Bayer: 'Although it clearly is not called for in this case, no provision is made for a "nay" vote on this voting paper. It seems to me that such provision should be made as a matter of course.'

Dupuis: 'Il est inexact de dire qu'il faille choisir entre les propositions originales et celles de Nye et al. Il y a aussi une troisième possibilité: laisser les choses en l'état. En fait je considère que l'on doit revoir l'Opinion 450 au même titre que toutes les autres Opinions qui apparaissent à un moment ou à un autre mal fondées. Je vote pour la proposition Sabrosky et Ferguson.'

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and for a name whose entry on the Official List is

corrected by the ruling given in the present Opinion:
ATTACIDAE Duponchel, 1844, *Catalogue méthodique des Lépidoptères d'Europe* (Paris, C. Renard), p. 78
major, Phalaena (Bombyx) pavonia, Linnaeus, 1758, *Syst. Nat.* ed. 10, vol. 1, p. 497
pyri, Bombyx, [Denis & Schiffermüller], 1775, *Ankundung* [sic] *eines systematischen Werkes von den Schmetterlinge der Wiener Gegend,* p. 49
Saturnia Schrank, 1802, *Fauna Boica* (Ingolstadt, Krüll), p. 149
SATURNIIDAE Boisduval, 1837, *Icones historiques des Lépidoptères nouveaux ou peu connus* Paris, Roret), p. 170.

The following is the reference to a type-species designation accepted in the ruling given in the present Opinion: of *Bombyx puri* [Denis & Schiffermüller], 1775 as type species of *Saturnia* Schrank, 1802, by Grote, 1895, *Canadian Entomol.*, vol. 27, p. 267.

CERTIFICATE

I hereby certify that the votes cast on voting paper (80)4 were cast as set out above, that the proposals contained in Alternative B of that voting paper have been duly adopted, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1170.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
8 September 1980

OPINION 1171

THE STEM OF THE GENERIC NAME *PETROMYZON* LINNAEUS, 1758 (PISCES) IS PETROMYZONT-

RULING.– (1) It is hereby ruled that the stem of the generic name *Petromyzon* Linnaeus, 1758, for the purposes of Article 29 is PETROMYZONT–.

(2) The generic name *Petromyzon* Linnaeus, 1758 (gender: masculine), type species, by subsequent designation by Jordan & Copeland, 1877, *Petromyzon marinus* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2112.

(3) The specific name *marinus* Linnaeus, 1758, as published in the binomen *Petromyzon marinus* (specific name of type species of *Petromyzon* Linnaeus, 1758) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2729.

(4) The family name PETROMYZONTIDAE Bonaparte, 1832 (type genus, *Petromyzon* Linnaeus, 1758) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 508.

HISTORY OF THE CASE Z.N.(S.)2045

An application for the determination of the correct spelling of the family name for the Holarctic lampreys – whether PETROMYZONIDAE or PETROMYZONTIDAE – was first received from Professor V.D. Vladykov (*University of Ottawa*) on 21 February 1973. After some correspondence, it was sent to the printer on 24 October 1973 and published on 28 June 1974 in *Bull. zool. Nom.* vol. 30, pp. 198–199. No use of the plenary powers was requested.

The late Dr Carl Hubbs (*Bull. zool. Nom.* vol. 32, pp. 18–19) and Dr C.G. Gruchy (*National Museum of Natural Sciences, Ottawa*) supported PETROMYZON- (*ibid.* pp. 19–20). Vladykov & Gruchy (*ibid.* pp. 154–155) asked for a ruling in that sense. Steyskal, however (*ibid.* p. 21) supported PETROMYZONT-, and Morrow (*ibid.* p. 200) showed that this is the correct form under the Code. Follett & Dempster (*Bull. zool. Nom.* vol. 33, p. 142) and Robins (*ibid.* pp. 142–143) showed that usage strongly favours PETROMYZONT-. In addition, Follett & Dempster provided correct references for the subsequent designation of a types species for *Petromyzon* Linnaeus, 1758 and for the family name itself.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)5 either for PETROMYZON– or for PETROMYZONT– as the stem of the family-group name based on *Petromyzon* Linnaeus, 1758. It was pointed out that the adoption of the former would require a two-thirds majority vote, whereas the adoption of the latter required only a simple majority. At the close of the voting pariod on 9 July 1980 the state of the voting was as follows:

For PETROMYZON– four (4): Brinck, Trjapitzin, Habe, Nye

For PETROMYZONT– eighteen (18) received in the following order: Melville, Holthuis, Vokes, Corliss, Willink, Mroczkowski, Bayer, Kraus, Hahn, Starobogatov, Sabrosky, Halvorsen, Alvarado, Binder, Cogger, Dupuis, Tortonese, Welch

No voting papers were returned by Heppel and Ride.

Professor Hahn pointed out that PETROMYZONT– is clearly supported by F.C. Werner in 'Wortelemente lateinisch-griechischer Fachausdrücke in den biologischen Wissenschaften'.

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the ruling given in the present Opinion:

marinus, Petromyzon Linnaeus, 1758, *Syst. Nat.* ed. 10, vol. 1, p. 230

Petromyzon Linnaeus, 1758, *Syst. Nat.* ed. 10, vol. 1, p. 230

PETROMYZONTIDAE Bonaparte, 1832, Saggio d'una distribuzione metodica degli animali vertebrati a sangue freddo. *Giorn. Arcadica*, vol. 52, pp. 165, 189

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)5 were cast as set out above, that the proposal contained in Alternative B on that voting paper has been duly adopted, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1171.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
12 September 1980

OPINION 1172

ASCIDIA INTESTINALIS LINNAEUS, 1767 (TUNICATA) CONSERVED

RULING.– (1) Under the plenary powers, the specific name *sociabile* Gunnerus, 1765, as published in the binomen *Tethyum sociabile,* is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Ciona* Fleming, 1822 (gender: feminine), type species, by monotypy, *Ascidia intestinalis* Linnaeus, 1767, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2113.

(3) The specific name *intestinalis* Linnaeus, 1767, as published in the binomen *Ascidia intestinalis* (specific name of type species of *Ciona* Fleming, 1822) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2730.

(4) The specific name *sociabile* Gunnerus, 1765, as published in the binomen *Tethyum sociabile*, and as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1074.

HISTORY OF THE CASE Z.N.(S.)2087

An application for the conservation of *Ascidia intestinalis* Linnaeus, 1767 (the type species of the well-known ascidian genus *Ciona* Fleming, 1822) was first received from Dr Jon-Arne Sneling and Dr Björn Gulliksen (*Biologisk Stasjon, Trondheim, N-7001, Norway*) on 1 August 1974. After some correspondence it was sent to the printer on 19 November 1974 and published on 27 June 1975 in *Bull. zool. Nom.* vol. 32, pp. 127–128. Public notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the statutory serials and six general serials. No comment was received.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper 1980(6) for or against the proposals set out in *Bull. zool. Nom.* vol. 32, p. 127. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-two (22) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Heppell, Bayer, Kraus, Hahn, Starobogatov, Habe, Halvorsen, Nye, Alvarado, Binder, Cogger, Dupuis,

Tortonese, Welch
Negative Vote – Sabrosky
No voting papers were returned by Bernadi and Ride.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Ciona Fleming, 1822, *The philosophy of zoology* (Edinburgh), p. 512

intestinalis, Ascidia, Linnaeus, 1767, *Systema Naturae* ed. 12, vol. 1 (2), p. 1087

sociabile, Tethyum, Gunnerus, 1765, *K. norske Vidensk. Selsk. Skr.*, vol. 3, pp. 81–102

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)6 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1172.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
12 September 1980

OPINION 1173

THE TYPE SPECIES OF *HILTERMANNICYTHERE* BASSIOUNI, 1970 (CRUSTACEA, OSTRACODA) IS *CYTHEREIS TURBIDA* MÜLLER, 1894

RULING.– (1) Under the plenary powers, all designations of type species hitherto made for the nominal genus *Hiltermannicythere* Bassiouni, 1970, are hereby set aside and the nominal species *Cythereis turbida* G.W. Müller, 1894, is hereby designated as type species of that genus.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Hiltermannicythere* Bassiouni, 1970 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Cythereis turbida* G.W. Müller, 1894 (Name Number 2114);

(b) *Celtia* Neale, 1973 (gender: feminine), type species, by original designation, *Cythere quadridentata* Baird, 1850 (Name Number 2115).

(3) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *turbida* G.F. Müller, 1894, as published in the binomen *Cythereis turbida* (specific name of type species of *Hiltermannicythere* Bassiouni, 1970) (Name Number 2731);

(b) *quadridentata* Baird, 1850, as published in the binomen *Cythere quadridentata* (specific name of type species of *Celtia* Neale, 1973 (Name Number 2732).

HISTORY OF THE CASE Z.N.(S.)2089

An application for a ruling on the type species of the nominal genus *Hiltermannicythere* Bassiouni, 1970 was first received from the late Professor P.C. Sylvester-Bradley (in his own name together with those of Dr M.A. Bassiouni and Dr J.W. Neale) on 25 September 1974. It was sent to the printer on 19 November 1974 and published on 22 September 1975 in *Bull. zool. Nom.* vol 32, pp. 161–162. Public notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the statutory serials and to five general serials and one specialised

serial. The application was supported by Dr R.H. Bate (*British Museum, Natural History, London*). No adverse comment was received.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)7 for or against the proposals set out in *Bull. zool. Nom.* vol. 32, p. 161. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-three (23) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Heppell, Bayer, Kraus, Starobogatov, Habe, Sabrosky, Nye, Halvorsen, Alvarado, Binder, Cogger, Dupuis, Tortonese, Welch, Bernardi

Negative Vote – Hahn

No voting paper was returned by Ride.

The following comments were sent in by members of the Commission with their voting papers:

Hahn; 'I cannot see a serious reason to change the type species of *Hiltermannicythere*. In 1973 *H. quadridentata* was unequivocally the type species of that genus. To propose a new genus on the same species, knowing this fact, as apparently done by Neale, is unjustifiable nomenclaturally. Such an act should not be legalised afterwards by the Commission. I therefore vote against this application.'

Dupuis: 'J'ai l'habitude de voter "pour" dans tous les cas d'espèce-type mal identifiée. Dans le cas particulier, je vote de la même manière, tout en deplorant la longueur de nom *Hiltermannicythere* que l'on aurait pu proposer de faire disparaître.'

Bernardi: ' "For", puisque les *quadridentata* qui étaient sous les yeux de Bassiouni en 1970 étaient en réalité des *turbida*. Pour cette fois, excellente intervention de la Commission pour rétablir la réalité.'

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the ruling given in the present Opinion:

Celtia Neale, 1973, *Rev. espanola Micropaleontol.* vol. 5, p. 436

Hiltermannicythere Bassiouni, 1970, *Rev. espanola Micropaleontol.* vol. 3, p. 121

quadridentata, Cythere, Baird, 1850, *The natural history of British Entomostraca* London, Ray Society), p. 173

turbida, Cythereis, G.F. Müller, 1894, *Fauna und Flora des Golfes von Neapel*, Monogr. 21, pp. 371, 372.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)7 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1173.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
15 September 1980

OPINION 1174
THE TYPE SPECIES OF *ATRACTOCERA* MEIGEN, 1803 (DIPTERA) IS *TIPULA REGELATIONIS* LINAEUS, 1758

RULING. – (1) The type species of the nominal genus *Atractocera* Meigen, 1803 (gender: feminine) is *Tipula regelationis* Linnaeus, 1758.

(2) Since, as a result of the ruling given in (1) above, the generic name *Atractocera* becomes, in the current state of taxonomic knowledge, invalid as a junior synonym of *Trichocera* Meigen, 1803, it is not placed on the Official List of Generic Names in Zoology.

(3) The specific name *regelationis* Linnaeus, 1758, as published in the binomen *Tipula regelationis* (specific name of type species of *Atractocera* Meigen, 1803), is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2733.

HISTORY OF THE CASE Z.N.(S.)2092

An application for the determination of the type species of *Atractocera* Meigen, 1803, formed part of an application first received from Professor Brinck on behalf of Dr Christine Dahl on 20 October 1960 and published in 1961 (*Bull. zool. Nom.* vol. 18, pp. 203–205, Z.N.(S.)1407). It was extracted from that file and treated separately because it became clear that *Atractocera* is a genus based on a misidentified type species, and that the name could be dealt with independently of the more complex issues in the original application affecting the generic name *Trichocera* Meigen, 1803.

The separate application concerning *Atractocera* was sent to the printer on 19 November 1974 and published on 27 March 1975 in *Bull. zool. Nom.* vol. 32, pp. 43–44. No use of the plenary powers was involved.

Dr Dahl, acting as first reviser in her application, stated that *Trichocera* and *Atractocera* are currently treated as synonyms, and selected *Trichocera* as the valid name. She also asked that the provisions of Article 70a(iii) be applied; these do not require the use of the plenary powers.

DECISION OF THE COMMISION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)8 for or against the proposal set out in *Bull. zool. Nom.* vol. 32, p.44. At the close of the voting period on 9 July 1980 the state of the voting

was as follows:

Affirmative Votes – twenty (20) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Bayer, Hahn, Kraus, Starobogatov, Habe, Sabrosky, Nye, Halvorsen, Alvarado, Binder, Dupuis, Tortonese

Negative Vote – Welch

Abstention – Cogger

No votes were returned by Bernardi, Heppell and Ride.

The following comments were sent in by members of the Commission with their voting papers:

Hahn: 'This proposal will not only avoid confusion with *Odagmia,* but also with *Atractocerus* (Coleoptera, LYMEXYLONIDAE).'

Cogger: 'In my view the submission is inadequate. The vital question of what decision would "...best serve stability and uniformity of nomenclature", Art. 70a, is addressed only superficially and without substantive supporting evidence from the literature. Consequently I abstain from voting.'

ORIGINAL REFERENCE

The following is the original reference for a name placed on an Official List by the ruling given in the present Opinion:
regelationis, Tipula, Linnaeus, 1758, *Syst. Nat.* ed. 10, Vol. 1, p. 587.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)8 were cast as set out above, that the proposal contained in that voting paper has been duly adopted, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1174.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
15 September 1980

OPINION 1175
MONSTRILLA INTERMEDIA KRICZAGIN, 1877 (COPEPODA) SUPPRESSED

RULING.– (1) Under the plenary powers the specific name *intermedia* Kriczagin, 1877, as published in the binomen *Monstrilla intermedia* is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *grandis* Giesbrecht, 1891, as published in the binomen *Monstrilla grandis* (Name Number 2734);

(b) *longicornis* Thompson, 1890, as published in the binomen *Monstrilla longicornis* (Name Number 2735).

(3) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *intermedia* Kriczagin, 1877, as published in the binomen *Monstrilla intermedia*, and as suppressed under the plenary powers in (1) above (Name Number 1075);

(b) *intermedia* Aurivillius, 1898, as published in the binomen *Monstrilla intermedia*, a junior primary homonym of *Monstrilla intermedia* Kriczagin, 1877 (Name Number 1076).

HISTORY OF THE CASE Z.N.(S.)2098

An application for the conservation of *Monstrilla grandis* Giesbrecht, 1891 was first received from Dr M.J. Isaac *(University College of Swansea, U.K.)* on 19 November 1974. After some correspondence it was sent to the printer on 16 May 1975 and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 171–172. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to five general and one specialised serial. No comment was received.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)9 for or against the proposals set out in *Bull. zool. Nom.*

vol. 32, p. 171. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – seventeen (17) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Mroczkowski, Bayer, Hahn, Starobogatov, Habe, Halvorsen, Alvarado, Binder, Cogger, Tortonese, Welch

Negative Votes – six (6): Willink, Kraus, Sabrosky, Nye, Dupuis, Bernardi

No voting papers were returned by Heppell and Ride.

The following comments were returned by members of the Commission with their voting papers:

Willink: 'In this special case I don't think it will cause too many problems to start to use again the first name given to the species.'

Kraus: 'There is no statement by the applicant indicating that the species in question has a more general importance.'

Nye: 'Although I would agree to granting *M. grandis* nomenclatural precedence over *M. intermedia* if the two names are applied to the same taxon, I am not convinced that the senior name should be unconditionally suppressed.'

Bernardi: 'Ces Copépodes n'ont, je suppose, aucun intérêt économique. Il est donc bien inutile d'officialiser l'erreur nomenclatorique de Dolpogolskaya, 1948, puisque, par ailleurs, elle a montré que *M. grandis* est un synonyme plus récent de *M. intermedia* Kriczagin. D'autre part, l'existence de deux homonymes (*intermedia* Kriczagin et *intermedia* Aurivillius) ne constitue aucunement une source de confusion, puisque *intermedia* Aurivillius n'est pas employé, étant un synonyme plus récent de *longicornis.* L'intervention de la Commission est ici bien inutile.'

ORIGINAL REFERENCES

The following are the original references for names placed on an Official List and an Official Index by the ruling given in the present Opinion:

grandis, Monstrilla, Giesbrecht, 1891, *Atti Accad.naz. Lincei, Rendiconti,* vol. 7, Sem. 1, p. 476

intermedia, Monstrilla, Aurivillius, 1898, *K. svenska Vetensk. Akad. Handl.* vol. 30, pp. 39–40

intermedia, Monstrilla, Kriczagin, 1877, *Zap. kiev. Obshsch. Estest.,* vol. 5, pp. 17–21

longicornis, Monstrilla, J.C. Thompson, 1890, *Proc. Trans. Liverpool biol. Soc.* vol. 4, p. 119.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)9 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1175.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
16 September 1980

OPINION 1176
ECHIS COLORATA [SIC] GUENTHER, 1878 (REPTILIA, SERPENTES) GIVEN NOMENCLATURAL PRECEDENCE OVER *ECHIS FROENATA* [SIC] DUMÉRIL, BIBRON & DUMÉRIL, 1854

RULING.– (1) Under the plenary powers it is hereby ruled that the specific name *colorata* Guenther, 1878, as published in the binomen *Echis colorata* [sic], is to be given nomenclatural precedence over the specific name *froenata* Duméril, Bibron & Duméril, 1854, as published in the binomen *Echis froenata* [sic] whenever the two names are considered synonyms.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology with the endorsements and Name Numbers specified:

(a) *colorata* Guenther, 1878, as published in the binomen *Echis colorata* [sic], with the endorsement given under the plenary powers in (1) above (Name Number 2736);

(b) *froenata* Duméril, Bibron & Duméril, 1854, as published in the binomen *Echis froenata* [sic] with an endorsement that it is not to be given priority over *Echis colorata* Guenther, 1878, whenever the two names are considered synonyms (Name Number 2737).

HISTORY OF THE CASE Z.N.(S.)2064

An application for the conservation of *Echis coloratus* Guenther, 1878 (first published as *E. colorata*) was first received from Mr A. Stimson (*British Museum (Natural History), London*) on 28 February 1974. It was sent to the printer on 5 April 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31, pp. 223–224. Public notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the statutory serials and to two herpetological serials. The application was supported by Professor Hobart M. Smith *(University of Colorado)* and criticised by Professor Ernst Mayr (*Bull. zool. Nom.* vol. 32, p. 199).

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)10 for or against the proposals set out in *Bull. zool. Nom.* vol. 31, pp. 223–224. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – seventeen (17) received in the following order: Melville, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Bayer, Hahn, Starobogatov, Habe, Halvorsen, Nye, Binder, Cogger, Tortonese, Welch

Negative Votes – five (5): Holthuis, Kraus, Sabrosky, Alvardo, Dupuis

No voting papers were returned by Bernardi, Heppell and Ride.

ORIGINAL REFERENCES

The following are the original references for the names placed on an Official List by the ruling given in the present Opinion:

colorata, Echis, Guenther, 1878, *Proc. zool. Soc. London* for 1878, p. 977

froenata, Echis, Duméril, Bibron & Duméril, 1854, *Erpétologie générale, ou histoire naturelle complète des reptiles,* vol. 7, p. 1449.

CERTIFICATE

I hereby certify that the votes cast on voting paper (80)10 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1176.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
16 September 1980

OPINION 1177

COSSMANNELLA MAYER-EYMAR, 1896 (MOLLUSCA, BIVALVIA) DESIGNATION OF TYPE SPECIES

RULING.– (1) Under the plenary powers, all designations of type species for the nominal genus *Cossmannella* Mayer-Eymar, 1896 hitherto made are hereby set aside and the nominal species *Cardita fajumensis* Oppenheim, 1903 is designated as type species of that genus.

(2) The generic name *Cossmannella* Mayer-Eymar, 1896 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Cardita fajumensis* Oppenheim, 1903 is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2116.

(3) The specific name *fajumensis* Oppenheim, 1903, as published in the binomen *Cardita fajumensis* (specific name of type species of *Cossmannella* Mayer-Eymar, 1896) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2738.

HISTORY OF THE CASE Z.N.(S.)2106

An application for the use of plenary powers to designate a type species for the genus *Cossmannella* Mayer-Eymar, 1896 was first received from Dr Amin Strougo (*Université de Paris-Orsay*) on 16 December 1974. After some correspondence it was sent to the printer on 16 May 1975 and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 173–174. Public notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the statutory serials and to five general and three specialised serials. No comment was received.

DECISION OF THE COMMITTEE

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)11 for or against the proposals set out in *Bull. zool. Nom.* vol. 32, pp. 173–174. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-three (23) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Bayer, Kraus, Hahn, Starobogatov, Habe, Sabrosky, Halvorsen, Nye, Alvarado, Binder, Cogger, Dupuis, Tortonese, Welch, Bernardi

Negative Votes – none (0)

No voting papers were returned by Heppell and Ride.

Bernardi commented 'Même remarque que pour l'espèce-type de *Hiltermannicythere* (Opinion 1173).'

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the ruling given in the present Opinion:

Cossmannella Mayer-Eymar, 1896, *J. Conchyliol.* vol. 44, p. 366

fajumensis, Cardita, Oppenheim, 1903, *Palaeontographica* vol. 30, Abt. 3, Heft 1–2, p. 105.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)11 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1177.

R. MELVILLE
Secretary
International Commision on Zoological Nomenclature
16 September 1980

OPINION 1178

MEGASTERNUM MULSANT, 1844, AND *CRYPTOPLEURUM* MULSANT, 1844 (INSECTA, COLEOPTERA): TYPE SPECIES DETERMINED

RULING.– (1) Under the plenary powers, all designations of type species hitherto made for the nominal genera *Megasternum* Mulsant, 1844 and *Cryptopleurum* Mulsant, 1844 are set aside, and

(a) *Dermestes obscurus* Marsham, 1802 is hereby designated as type species of *Megasternum* Mulsant, 1844;

(b) *Sphaeridium minutum* Fabricius, 1775 is hereby designated as type species of *Cryptopleurum* Mulsant, 1844.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Megasternum* Mulsant, 1844 (gender, neuter), type species, by designation under the plenary powers in (1)(a) above, *Dermestes obscurus* Marsham, 1802 (Name Number 2117);

(b) *Cryptopleurum* Mulsant, 1844 (gender, neuter), type species, by designation under the plenary powers in (1)(b) above, *Sphaeridium minutum* Fabricius, 1775 (Name Number 2118).

(3) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *obscurus* Marsham, 1802, as published in the binomen *Dermestes obscurus* (specific name of type species of *Megasternum* Mulsant, 1844) (Name Number 2739);

(b) *minutum* Fabricius, 1775, as published in the binomen *Sphaeridium minutum* (specific name of type species of *Cryptopleurum* Mulsant, 1844 (Name Number 2740).

HISTORY OF THE CASE Z.N.(S.)2075

An application for the use of the plenary powers to designate type species for the genera *Megasternum* Mulsant, 1844 and *Cryptopleurum* Mulsant, 1844 was first received from Dr A. Smetana (*Biosystematics Research Institute, Ottawa, Canada*) on 20 June 1974. It was sent to the printer on 27 August 1974 and published on 31 December 1974 in *Bull. zool. Nom.* vol. 31,

pp. 244–246. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to seven entomological serials. Apart from a request by the late Dr. H. Lemche that a separate vote be called for on each nominal genus, no comment was received.

DECISION OF THE COMMISSION

On 14 December 1979 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1979)27 for or against the proposals set out in *Bull. zool. Nom.* vol. 31, p. 245, (a) concerning *Megasternum* Mulsant, 1844, and (b) concerning *Cryptopleurum* Mulsant, 1844. At the close of the voting period on 14 March 1980 the state of the voting was as follows:

Affirmative Votes (for both (a) and (b)) – twenty-three (23) received in the following order: Melville, Holthuis, Bayer, Mroczkowski, Willink, Vokes, Corliss, Tortonese, Trjapitzin, Alvarado, Brinck, Hahn, Habe, Heppell, Welch, Starobogatov, Sabrosky, Ride, Kraus, Dupuis, Nye, Halvorsen, Binder

Negative Votes – none (0)

Abstention – Cogger

No voting paper was returned by Bernardi.

Dr Cogger observed: 'I abstain from voting on both proposals. The questions of stability and usage are addressed superficially, without any supporting evidence beyond broad, unsubstantiated statements.' Professor Brinck suggested that the type of *Dermestes obscurus* Marsham, 1802 should be checked. Mr M.E. Bacchus (*British Museum, Natural History*) kindly did so and found two Marsham specimens. One, labelled "holotype" by Balfour-Browne (see *Entomol. mon. Mag.*, vol. 75, 1939, p. 5) should presumably be regarded as the lectotype. Both specimens belong to the species currently known as *Megasternum obscurum* (Marsham, 1802).

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the ruling given in the present Opinion:

Cryptopleurum Mulsant, 1844, *Hist. nat. coléoptères de France*, Palpicornes, p. 188

Megasternum Mulsant, 1844, *Hist. nat. coléoptères de France*, Palpicornes, p. 187

minutum, Sphaeridium, Fabricius, *Syst. Entomol.*, p. 68

obscurus, Dermestes, Marsham, 1802, *Entomol. Britannica*, I. Coleoptera, p. 72.

CERTIFICATE

I hereby certify that the votes cast on V.P.(79)27 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1178.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
17 September 1980

OPINION 1179

POLYDRUSUS GERMAR, 1817 AND *PHYLLOBIUS* GERMAR, 1824 (INSECTA, COLEOPTERA): CONSERVED IN ACCORDANCE WITH CURRENT USAGE

RULING.– (1) Under the plenary powers, all designations of type species made for the nominal genus *Polydrusus* Germar, 1817, prior to the designation of *Curculio undatus* Fabricius, 1781, by Schönherr, 1826, are hereby set aside and that designation is accepted.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Polydrusus* Germar, 1817 (gender: masculine), type species, by subsequent designation by Schönherr, 1826 as accepted under the plenary powers in (1) above, *Curculio undatus* Fabricius, 1781 (Name Number 2119);

(b) *Phyllobius* Germar, 1824 (gender: masculine), type species, by subsequent designation by Schönherr, 1826, *Curculio pyri* Linnaeus, 1758 (Name Number 2120).

(3) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *undatus* Fabricius, 1781, as published in the binomen *Curculio undatus* (specific name of type species of *Polydrusus* Germar, 1817) (Name Number 2741);

(b) *pyri* Linnaeus, 1758, as published in the binomen *Curculio pyri* (specific name of type species of *Phyllobius* Germar, 1824 (Name Number 2742).

(4) The following names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) POLYDROSINI (correction of "Polydrosides") Schönherr, 1823 (type genus *Polydrosus* Schönherr, 1826, an unjustified emendation of *Polydrusus* Germar, 1817) (Name Number 509);

(b) PHYLLOBIINI (correction of "Phyllobides") Schönherr, 1826 (type genus, *Phyllobius* Germar, 1824) (Name Number 510).

HISTORY OF THE CASE Z.N.(S.)2107

An application for the use of the plenary powers to maintain current usage of the generic names *Polydrusus* Germar, 1817 and *Phyllobius* Germar, 1824 was first received from Dr R.T. Thompson (*British Museum, Natural History*) on 19 December 1974. It was sent to the printer on 16 May 1975 and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 175–176. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to eight entomological serials. The application was supported by Dr Elwood C. Zimmerman (*CSIRO Division of Entomology, Canberra, Australia*), Dr M.G. Morris (*Monks Wood Experimental Station, Huntingdon, U.K.*) and Dr M. Ter-Minassian (*Academy of Sciences, Leningrad, USSR*). No adverse comment was received.

Dr Zimmerman thought it would be better if the family-group name based on *Polydrusus* should be spelled 'POLYDRUSINI'. I verified that '*Polydrosus*' is an available name, being an unjustified emendation by Schönherr, 1826, of *Polydrusus*; and Dr Thompson showed me that POLYDROSINI is indeed the name that is in general use, so that stability would not be served by altering it.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule in Voting Paper (1980) 12 for or against the proposals set out in *Bull. zool. Nom.* vol. 32, p. 176. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-one (21) received in the following order: Melville, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Kraus, Hahn, Bayer, Starobogatov, Habe, Sabrosky, Halvorsen, Nye, Alvarado, Binder, Cogger, Tortonese, Welch, Bernardi

Negative Votes – none (0)

Abstentions – Holthuis, Dupuis

Dr Holthuis and Dr Nye pointed out that the type genus of POLYDROSINI must be cited as *Polydrosus*, not *Polydrusus;* Professor Dupuis would have preferred to alter *Polydrusus* to *Polydrosus*; Professor Tortonese would have preferred to alter POLYDROSINI to POLYDRUSINI.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the ruling given in the present Opinion:

PHYLLOBIINI Schönherr, 1826, *Curculionidum dispositio*

methodica (Leipzig), p. 15
Phyllobius Germar, 1824, *Insectorum species* ....vol. 1, Coleoptera, p. 447
POLYDROSINI Schönherr, 1823, *Isis* von Oken (Jena), vol. 7, part 10, column 1144
Polydrusus Germar, 1817, *Mag. entomol.* (Germar), vol. 2, p. 341
pyri, Curculio, Linnaeus, 1758, *Syst. Nat.* ed. 10, vol. 1, p. 384
undatus, Curculio, Fabricius, 1781, *Species insectorum* ....vol. 1, p. 189.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)12 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1179.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
17 September 1980

OPINION 1180

THAMNOPHILUS AMAZONICUS SCLATER, 1858 (AVES) CONSERVED

RULING.– (1) Under the plenary powers, the specific name *ruficollis* Spix, 1825, as published in the binomen *Thamnophilus ruficollis*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *amazonicus* Sclater, 1858, as published in the binomen *Thamnophilus amazonicus*, and as interpreted by the neotype designated by Parkes, 1975 (Name Number 2743);

(b) *cinereiceps* Pelzeln, 1868, as published in the binomen *Thamnophilus cinereiceps* (Name Number 2744).

(3) The specific name *ruficollis* Spix, 1825, as published in the binomen *Thamnophilus ruficollis*, and as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1077.

HISTORY OF THE CASE Z.N.(S.)2108

An application for the conservation of *Thamnophilus amazonicus* Sclater, 1858 (with a collateral proposal affecting *T. cinereiceps* Pelzeln, 1868) was first received from Dr K.C. Parkes (*Carnegie Museum, Pittsburgh, U.S.A.*) on 9 January 1975. After some correspondence it was sent to the printer on 16 May 1975 and published on 25 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 177–180. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to five general and eleven specialised serials. The application was supported by Dr G.F Mees and Dr Eugene Eisenmann, who helped in its preparation; no comment was received after it had been published.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)13 for or against the proposal set out in *Bull. zool. Nom.* vol. 32, p. 179. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-three (23) received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Kraus, Hahn, Bayer, Starobogatov, Habe, Sabrosky, Halvorsen, Nye, Alvarado, Binder, Cogger, Dupuis, Tortonese, Welch, Bernardi

Negative Votes – none (0)

No voting papers were returned by Heppell and Ride.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

amazonicus, Thamnophilus, Sclater, 1858, *Proc. zool. Soc. London* vol. 27, p. 214

cinereiceps, Thamnophilus, Pelzeln, 1868, *Zur Ornithologie Brasiliens,* part 2, p. 145

ruficollis, Thamnophilus, Spix, 1825, *Avium species novae* ...vol. 2, p. 27.

The following is the original reference to a neotype designation accepted in the ruling given in the present Opinion: of British Museum (Natural History) No. 1889. 9. 20. 89 as neotype of *Thamnophilus amazonicus* Sclater, 1858 by Parkes, K.C., 1975, *Bull. zool. Nom.* vol. 32, p. 178.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)13 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1180.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
19 September 1980

OPINION 1181
MICRODRYAS LASERON, 1950 (MOLLUSCA, GASTROPODA) DESIGNATION OF A TYPE SPECIES

RULING.– (1) Under the plenary powers, all designations of type species hitherto made for the nominal genus *Microdryas* Laseron, 1950, are hereby set aside and the nominal species *Epigrus iravadioides* Gatliff & Gabriel, 1913, is designated as type species of that genus.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Microdryas* Laseron, 1950 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Epigrus iravadioides* Gatliff & Gabriel, 1913 (Name Number 2121);

(b) *Subestea* Cotton, 1944 (gender: feminine), type species, by original designation, *Alvania seminodosa* May, 1916 (Name Number 2122).

(3) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *iravadioides* Gatliff & Gabriel, 1913, as published in the binomen *Epigrus iravadioides* (specific name of type species of *Microdryas* Laseron, 1950 (Name Number 2745);

(b) *australiae* Frauenfeld, 1867, as published in the binomen *Cingula australiae* (the valid name, at the date of this ruling, for the type species of *Subestea* Cotton, 1944) (Name Number 2746).

HISTORY OF THE CASE Z.N.(S.)2121

Correspondence on several subjects with Dr W.F. Ponder *(Australian Museum, Sydney)* during 1975 led to the receipt of an application for the determination of the type species of *Microdryas* Laseron, 1950 on 21 April 1975. The genus is one based on a misidentified type species. The application was sent to the printer on 16 May 1975 and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, p. 192. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to five general serials and to four malacological serials. No comment was received.

DECISION OF THE COMMISSION

On 9 April 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)14 for or against the proposals set out in *Bull. zool. Nom.* vol. 32, p. 192. At the close of the voting period on 9 July 1980 the state of the voting was as follows:

Affirmative Votes – twenty-two, received in the following order: Melville, Holthuis, Vokes, Corliss, Brinck, Trjapitzin, Willink, Mroczkowski, Hahn, Bayer, Starobogatov, Habe, Sabrosky, Halvorsen, Nye, Alvarado, Binder, Cogger, Dupuis, Tortonese, Welch, Bernardi

Negative Vote – Kraus

No voting papers were returned by Heppell and Ride.

The following comments were sent in by members of the Commission with their voting papers:

Kraus: 'There is no statement by the applicant indicating that the genus in question, described not earlier than 1950, has a more general importance. To a considerable extent the problem seems to trouble specialists on RISSOIDAE of the Australian region.'

Sabrosky: 'A case of misidentified type species for treatment under Article 70, although this is not mentioned in the application.'

Cogger: 'Although in agreement with the solution proposed by the applicant to overcome the problem created by a misidentified type species, he appears to be in error in his contention that in upholding the original type-species designation the genus *Microdryas* "would be reduced to a synonym of *Subestea*". On the contrary, *Microdryas* would become the senior synonym and so not only leave the *iravadioides* group without an available generic name, but in addition bring about a presumably unwanted replacement of *Subestea* by *Microdryas*.'

Bernardi: 'Oui, parce que les *"australiae"* qui étaient sous les yeux de Laseron, 1950 étaient des *iravadioides*.'

ORIGINAL REFERENCES

The following are the original references to names placed on Official Lists by the ruling given in the present Opinion:

australiae, Cingula, Frauenfeld, 1867, *Reise der Fregatte Novara um die Erde, 1857–59,* Zool. Theil, vol. 2 (3), Mollusca, p. 14

iravadioides, Epigrus, Gatliff & Gabriel, 1913, *Proc. roy. Soc. Victoria* N.S. vol. 26 (1), p. 67

Microdryas Laseron, 1950, *Rec. Australian Mus.* vol. 22 (3), p. 277

Subestea Cotton, 1944, *Trans. roy. Soc. S. Australia,* vol. 69, p. 292

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)14 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1181.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
19 September 1980

TYROPHAGUS OUDEMANS, 1924 (ACARINA): PROPOSALS TO CLARIFY THE NAME OF THE TYPE SPECIES AND TO CONSERVE THE NAME OF AN IMPORTANT PEST SPECIES. Z.N.(S.)1450

By Phyllis L. Robertson (*School of Chemistry, University of New South Wales, P.O. Box 1, Kensington, N.S.W. 2033, Australia)*

The present application concerns names which may properly be applied to species of Acarina of the genus *Tyrophagus* Oudemans, 1924. Its first object is to request the International Commission on Zoological Nomenclature to use its plenary powers to suppress the specific name *dimidiatus* Hermann, 1804, on the grounds that it is a *nomen dubium*, thereby rendering *longior* Gervais, 1844, the oldest available name for the species called *Tyrophagus dimidiatus* by Oudemans (*Tijdschr. Ent.* vol. 67, p. xxv, 1924). The Commission is also requested to place on the Official List the nominal species *longior* Gervais, 1844, and also the nominal species *putrescentiae* Schrank, 1781, type of the genus *Tyrophagus*, for which species the writer has designated neotypes on pages 165 and 157 respectively of *Aust. J. Zool.* vol. 7(2), 1959. Details of the case are as follows:–

2. In 1924 when Oudemans (*Ent. Ber. Amst.* vol. 6, p. 250), erected the genus *Tyrophagus*, he placed in it *Acarus dimidiatus* Hermann, 1804 (*Mém. Apter.* p. 85, pl. 6, fig. 4), among other species, and great confusion has continued to centre around this name. Having decided earlier that Hermann's *dimidiatus* belonged to the generic complex within which he distinguished *Tyrophagus* in 1924, Oudemans must have remained doubtful about the species to which it should be applied. He appears to have used it first in 1906 for a form which is now known by his later name *Tyrophagus australasiae*, but in 1924 he transferred it to a species of *Tyrophagus* which had been called *longior* Gervais for the preceding eighty years, and which was sufficiently clearly described and illustrated during that time as still to be recognizable in the light of current knowledge.

3. Despite the final stand taken by Oudemans, more recent authorities have been unable to agree on the identity of Hermann's *dimidiatus*. Some, for example Zakhvatkin, 1941, consider it to be unrecognizable, while others have applied the name to one or other of at least four different species.

4. In addition to the doubt which exists on the correctness of Oudemans' initial action in introducing *Acarus dimidiatus* into the group of which *Tyrophagus* is a part, and the threat to stability represented by the failure of present-day authorities to agree on the

identity of the species to which the name should be applied, still further doubt on the nomenclatural status of *dimidiatus* is cast by close examination of Hermann's original description and illustrations.

EXTRACT FROM: A REVISION OF THE GENUS *TYROPHAGUS*, WITH A DISCUSSION ON ITS TAXONOMIC POSITION IN THE ACARINA, *Aust. J. Zool.* vol. 7(2), pp. 146–181, 1959, by Phyllis L. Robertson

'Hermann's (1804) description of *dimidiatus*, in French, states: "Abdomen spherical, of a yellowish green in front, white behind and underneath, with radiating hairs, longer than the body [this description is repeated in Latin], pl. VI, fig. 4. It is found among mosses. I have not observed any palp, but intermediary chelicerae (pl. IX, fig. b) which, however, were not articulated at all as in other mites".

'There are a number of points in this description which, taken in conjunction with Hermann's drawings, suggest that it should not be accepted for any species of *Tyrophagus* at present known:

(1) *Form of the "abdomen"* [*i.e. the hysterosoma*]. – Characteristically the hysterosoma of *Tyrophagus* is far from spherical as in Hermann's species, being longer than it is wide, with obvious "shoulders" anteriorly and flattened dorsoventrally (see Fig. 35, p. 166) [i.e. in Robertson, 1959]. In Hermann's illustration (pl. VI, fig. 4) of *dimidiatus*, too, there is a carefully drawn curving line across the hysterosoma which seems likely to represent either a colour boundary or an additional suture. Neither of these interpretations would be applicable to a species of *Tyrophagus*.

(2) *Colour*. – In all known species of *Tyrophagus* the body cuticle is colourless, with the legs and apodemes only slightly darkened. None of them has a characteristic distribution of yellowish-green and white. Indeed, any trace of colour in the hysterosoma could only be due to body contents showing through the cuticle, and would appear towards the posterior end, not anteriorly as Hermann described.

(3) *Habitat*. – Oudemans (1924b) does not appear to have been successful in finding his species in moss, the habitat recorded by Hermann, nor have species of *Tyrophagus* been found there by other authors.
[*Note*: This position with regard to habitat cannot in

itself be taken as rendering the name *dimidiatus* inapplicable to species of the genus *Tyrophagus*. Since the latter are polyphagous, it may possibly be demonstrated that they occur in moss, as well as in other habitats as yet unrecognized. The present position, nevertheless, fails to offer any positive support for the view that the *dimidiatus* of Hermann is a species of *Tyrophagus*.]

(4) *Mouthparts*. – Hermann's description of the chelicerae appears to be the most significant statement of all. In the original French he referred to "des pinces intermédiaires, qui n'étoient cependant point articulées comme dans d'autres mites". But there is some doubt as to whether or not Hermann's illustration (pl. IX, fig. b) of the chelicerae is in agreement with his emphatic statement. If the written statement is accepted, then it must be assumed that Hermann's specimen was indeed one which lacked the articulation usual in other mites, and that the distally-placed lines in his illustration were contour lines and not joints. If this view is taken, then *dimidiatus* must be excluded from the genus *Tyrophagus* on the basis of the structure of its chelicerae. Alternatively it may be accepted that Hermann's illustration represents a chelicera with normal articulation of the type found in *Tyrophagus*. But this interpretation does not agree with the written description, and non-agreement between the two would make the identification of *dimidiatus* impossible, and so would also constitute grounds for rejecting it as the name of a species of *Tyrophagus*.'

5. There are thus at least three counts on which it appears that the interests of nomenclatural stability would best be served by using the plenary powers of the International Commission to suppress *dimidiatus* as a *nomen dubium*. These are, first, that present-day authorities either do not agree on the species of *Tyrophagus* to which the name *dimidiatus* Hermann, 1804, should be applied, or do not recognize it at all; secondly, that the characteristics of *dimidiatus* described by Hermann, in particular the shape of the abdomen, the colour, and the structure of the chelicerae, point to some form other than *Tyrophagus*; and, thirdly, that Hermann's description and illustration of the chelicerae, taken together, must be interpreted either as direct evidence that the species is not a *Tyrophagus* or that it is a species which is beyond recognition.

6. In the event of the International Commission taking the action suggested to suppress the name *dimidiatus* Hermann, 1804, then consideration must also be given to naming the species of *Tyrophagus* to which *dimidiatus* was applied by Oudemans in 1924. It was pointed out by the writer (*Aust. J. Zool.* vol. 7(2), pp. 153–4, 1959) that if *dimidiatus* is suppressed then *Tyroglyphus longior* Gervais, 1844 (*Hist. nat. Inst.* (Aptères) vol. 3, p. 262, pl. 35, fig. 5) becomes the first available name for that species. It is suggested that this name is acceptable both nomenclaturally and on zoological grounds, although no type is known to exist. To stabilize the position, the writer has taken the further step of designating a neotype for *longior*, and recognition of this action is now sought from the Commission.

7. The status of *Acarus putrescentiae* Schrank, 1781 (*Enum. Ins. Austr. ind.* p. 521) which Oudemans designated as the type of his genus *Tyrophagus*, also requires clarification, since no type specimen of *putrescentiae* is preserved and since some modern authorities consider the species to be unrecognizable. The writer (*Aust. J. Zool.* vol. 7(2), p. 151, 1959) has affirmed, from an examination of the Oudemans Collection held by the Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands, that Oudemans had a reasonably clear conception of the form he identified as the *putrescentiae* of Schrank, a species which is acceptable for inclusion in *Tyrophagus* on zoological grounds and whose name is an available one in the group. In the publication cited above, one of Oudemans' specimens is therefore designated the neotype of *putrescentiae*, a step which is now brought to the notice of the Commission as stabilizing both the species itself and also the genus *Tyrophagus* of which it is the type.

8. The International Commission on Zoological Nomenclature is therefore asked:–

(1) to use its plenary powers to suppress the specific name *dimidiatus* Hermann, 1804, as published in the binomen *Acarus dimidiatus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Tyrophagus* Oudemans, 1924 (gender: masculine) type-species, by original designation, *Acarus putrescentiae* Schrank, 1781, on the Official List of Generic Names in Zoology;

(3) to place the following specific names on the Official List of Specific Names in Zoology:–

(a) *putrescentiae* Schrank, 1781, as published in the binomen *Acarus putrescentiae* (type-species of *Tyrophagus* Oudemans, 1824) (as interpreted by the neotype designated by Robertson, 1959);

(b) *longior* Gervais, 1844, as published in the binomen *Tyroglyphus longior* (as interpreted by the neotype designated by Robertson, 1959;

(4) to place the specific name *dimidiatus* Hermann, 1804, as published in the binomen *Acarus dimidiatus* (as suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Specific Names in Zoology;

(5) to place the family name TYROPHAGIDAE Oudemans, 1924 (type-genus *Tyrophagus* Oudemans 1924) on the Official List of Family-Group Names in Zoology.

MANATI STELLER, 1774 AND *TRICHECHUS EXUNGUIS* (NATTERER IN DIESING, 1839) (MAMMALIA, SIRENIA): PROPOSAL TO PLACE THESE NAMES ON THE OFFICIAL INDEXES OF REJECTED AND INVALID NAMES IN ZOOLOGY. Z.N.(S.)2338

By Daryl P. Domning (*Department of Anatomy, Howard University, Washington, D.C. 20059*)

Hydrodamalis Retzius, 1794: p. 292 (type, by monotypy, *H. stelleri* Retzius, 1794, *ibid.*) was upheld over *Rhytina* (emended form of *Rytina* Illiger, 1811) as the generic name of Steller's sea cow by ICZN Opinion 90 (1925), though not placed on the Official List. The oldest available name for the type species, as noted by Palmer (1895), is *Manati gigas* Zimmermann, 1780. The spelling "manati" was commonly used in the 18th Century as a vernacular name for the manatee (*Trichechus* Linnaeus, 1758), and Steller (1751), believing the tropical manatee to be identical with the animal he discovered at Bering Island, applied the term "manati" to both. Allen (1902) stated that "the generic name *Manati* [Zimmerman, 1780] is of even date with *Manatus* Storr [=*Trichechus* L.]", implying that he considered the two as homonyms. (*Manatus* Storr, 1780 is in fact a junior homonym of *Manatus* Brünnich, 1771, which was rejected in favor of *Trichechus* by ICZN Opinion 112, 1929. Direction 13 placed both of the former names on the Official Index.) However, according to Article 56a of the Code, they must be regarded as distinct names, and the original applications of the name *Manati* were to Steller's sea cow. In addition to the combinations *Manati gigas* Zimmermann, 1780 and *Manati balaenurus* Boddaert, 1785, both senior objective synonyms of *Hydrodamalis stelleri* Retzius, 1794, there is a passage describing the Bering Island sea cows in a posthumous publication by Steller (1774, p. 97) which bears the heading "Die Seekuh *Manati*, auf russisch *Morskaia Korowa*" (italics in original). Though this usage was probably intended as vernacular, it could be interpreted as a valid uninominal publication of a new generic name, and I have treated it as such and as a *nomen oblitum* (Domning, 1978a, p.74). As *Manati* has not been regarded as the valid name of any form for well over a century and a half, although an available senior objective synonym of *Hydrodamalis*, it should be formally suppressed.

2. The valid name of the Amazonian manatee is now universally considered to be *Trichechus inunguis* (Natterer *in* Peizeln, 1883, pp. 89–94), and this name has been consistently used by mammalogists during the last 50 years (*e.g.*, Hatt, 1934; Coates,

1939, 1940; Vieira, 1949; Frye & Herald, 1969; Robineau, 1969; Evans & Herald, 1970; Loughman *et al.*, 1970; Bertram & Ricardo Bertram, 1973; Sonoda and Takemura, 1973; Domning, 1978b; Bullock *et al.*, 1980). However, in 1839 the parasitologist Diesing described two new species of worms (*Heterocheilus tunicatus* and *Amphistoma fabaceum*) from Natterer's type series of this manatee. As the host species had been recognized by Natterer as new but had not yet been described in print, Diesing (1839, p. 230n) appended to his description of the parasites a lengthy quotation from Natterer's manuscript describing and naming the manatee. However, whereas the name appears in Pelzeln, 1883, as *Manatus inunguis*, Diesing (perhaps quoting from a different draft of the manuscript) has *Manatus exunguis*. This, the senior name, while unknown to mammalogists, has had a persistent life of its own in the parasitological literature, although I am aware of only three instances of its use in the 20th Century (Stunkard, 1929; Price, 1932; Baylis, 1936). In all three instances the name was merely cited as having been used by earlier writers for a host species, the host itself not being further discussed nor any new parasitological information relating to it being reported. Price, 1932, pp. 43, 58, even indicated uncertainty as to whether *inunguis* was not really the proper name. Though its use now appears to have died out even among parasitologists (cf. Boever *et al.*, 1977), the name *Trichechus exunguis* (Naterer *in* Diesing, 1839) should be suppressed to avoid any danger to the present universal acceptance of its junior objective synonym *T. inunguis*.

3. I therefore ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers

(a) to suppress the generic name *Manati* Steller, 1774 (first published uninominally and later in the binomina *Manati gigas* Zimmermann, 1780 and *Manati balaenurus* Boddaert, 1785) as an unused senior synonym of *Hydrodamalis* Retzius, 1794, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(b) to suppress the specific name *exunguis* Natterer *in* Diesing, 1839, as published in the binomen *Manatus exunguis* (a senior objective synonym of *Manatus inunguis* Natterer *in* Pelzeln, 1883) for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Hydrodamalis* Retzius, 1794 (gender: feminine), type species, by monotypy, *Hydrodamalis stelleri* Retzius, 1794, on the Official List of Generic Names in

Zoology;

(3) to place the specific name *gigas* Zimmermann, 1780, as published in the binomen *Manati gigas* (the valid specific name of the type species of *Hydrodamalis* Retzius, 1794) on the Official List of Specific Names in Zoology;

(4) to place the generic name *Manati* Steller, 1774, as suppressed under the plenary powers in (1)(a) above, on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the specific name *exunguis* Natterer *in* Diesing, 1839, as published in the binomen *Manatus exunguis*, and as suppressed under the plenary powers in (1) (b) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.

REFERENCES

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LEDELLA VERRILL & BUSH, 1897 (MOLLUSCA, BIVALVIA) PROPOSED DESIGNATION OF TYPE SPECIES Z.N.(S.)2238

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The purpose of the present application is to preserve the generic name *Ledella* Verrill & Bush, 1897, in its accustomed sense and to clear up some anomalies concerning its type species, alleged to be *Leda messanensis* Seguenza, 1877.

2. Jeffreys, 1870, p. 69, made a note under the description of a new species, *Leda acuminata* Jeffreys, saying: 'Hitherto known only as a Sicilian fossil, Professor Seguenza having kindly sent me specimens from the neighbourhood of Messina as *L.*[*eda*] *messanensis*. As he has not described it I venture to prefer the characteristic name which I had given it when I dredged it off the west coast of Ireland to the local name proposed by him.' This is cited to show that Jeffreys considered *messanensis* a synonym of his *acuminata*, and that he preferred the latter name as being more descriptive. There is no description or figure or anything else to define *Leda messanensis* Seguenza, and the name is therefore a *nomen nudum*, proposed and rejected in synonymy at one and the same time.

3. Seguenza, 1877, p. 1175, quoted the name '*Junonia* Seguenza, 1876 (M.3)' as 'Quarta sezione' of *Leda* Schumacher, 1817. The first of several species included is '*Leda acuminata* Jeff., Tav. III, fig. 15, 15a, 15c, 15e – Sinonimi: *Leda messanensis* Seguenza (M.S.). . .'. Apparently *Junonia* was proposed with a proper description and included several species, but no type species was designated. The specific name *messanensis* was published – again in synonymy – without proper description, but related to material which is still extant (supposedly those specimens sent to Jeffreys).

4. Jeffreys, 1879, p. 578, replaced *Leda acuminata* Jeffreys by *Leda messanensis* Seguenza because of secondary homonymy with *Nucula acuminata* von Buch, in Zieten, 1833, *Petref. Württ.* (10) p. 33, which had been transferred to *Leda* by d'Orbigny, 1850, *Prodr. Paléont. vol. 1, p. 234. Nucula acuminata* von Buch, 1833, was, however, a junior primary homonym of *Nucula acuminata* Eichwald, 1830, *Naturhist. Skizzen von Lithauen*, p. 211. This raises an interesting point that is apparently not covered by the Code Jeffreys' 1879 adoption of *Leda messanensis* Seguenza (a name first published in synonymy in 1870) as a valid name makes it an available name as from its first publication in synonymy, i.e. as

of Seguenza *in* Jeffreys, 1870. But its potential validity must depend upon whether Jeffreys was right to regard *Nucula acuminata* von Buch (whose status as a junior primary homonym was obviously unknown to him) as valid from the point of view of secondary homonymy when transferred to *Leda*. It seems to me that the simplest solution is to accept that Jeffreys acted in good faith in 1879 and to accept his action as a *fait accompli*. (Warén, 1978, considered the Sicilian fossil and the Recent form distinguishable and used Seguenza's name for the former and Jeffreys's name for the latter. This, however, does not affect the proposals in paragraph 9.)

5. Verrill & Bush, 1897, p. 54, established '*Ledella* gen. nov. Figures 13, 18. Type *L. messanensis* (Seg.)' and gave as a synonym '*Junonia* Seguenza, Nuculidi . . . p. 1175, 1877 (not of Hübner)' [1818, *Verz. bekannt. Schmett.*, p. 34]. Examination by the present author of the material on which Verrill & Bush based their description and figures of *Ledella messanensis* and of syntypes of *L. messanensis* Seguenza in the Jeffreys collection in the U.S. National Museum of Natural History showed that two different species are involved (Warén, 1978). *Ledella* Verrill & Bush was thus based on a misidentification and the case is to be referred to the Commission. The manner in which *Ledella* is introduced leaves no doubt that it is meant as a distinct name with *Junonia* Seguenza (non Hübner) as a synonym, and not as a new replacement name in the proper sense. Thus, *Ledella* does not automatically take the same type species as *Junonia*.

6. Verrill & Bush, 1897, p. 55, also described *Yoldiella* gen. nov., with type species '*Yoldiella lucida* Lovén' which means *Yoldia lucida* Lovén, 1846, p. 34.

7. Since 1897, *Ledella* has been used mainly in the sense of Verrill & Bush, i.e. with the species that they believed to be *Leda messanensis* and that was redescribed as *L. bushae* Warén, 1978, as type species. This interpretation has been used for the description of about 25 new species (papers marked (i) in the references) and for inclusion of about 20 species originally described in other genera (marked * in the references). Only very few authors, all working exclusively on Mediterranean species, have used *Ledella* with the true *L. messanensis* Seguenza as type species (marked (iii) in the references). No new species have been described, nor have any species been transferred to *Ledella* interpreted in this way.

8. Warén, 1978, has shown that *Yoldiella* Verrill & Bush would probably be the appropriate genus for the true *L. messanensis* Seguenza. The species that Verrill & Bush named *messanensis* was not actually described by them. Their only figure shows a variety and is not eligible for defining that species, which therefore needs a

new name (Warén, 1978).

9. Of the three alternatives open to the Commission under Article 70a, alternative (ii) is not relevant because the identity of the species in question is not in doubt. The choice of alternative (iii) would lead to confusion between the generic names *Ledella* and *Yoldiella*. The Commission is therefore urged to adopt alternative (i), as follows:

(1) to use its plenary powers to set aside all designations of type species hitherto made for the nominal genus *Ledella* Verrill & Bush, 1897, and, having done so, to designate *Ledella bushae* Warén, 1978 as type species of that genus;

(2) to place on the Official List of Generic Names in Zoology:
   (a) *Ledella* Verrill & Bush, 1897 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Ledella bushae* Warén, 1978;
   (b) *Yoldiella* Verrill & Bush, 1897 (gender: feminine), type species, by original designation, *Yoldia lucida* Lovén, 1846;

(3) to place on the Official List of Specific Names in Zoology:
   (a) *bushae* Warén, 1978, as published in the binomen *Ledella bushae* (specific name of type species of *Ledella* Verrill & Bush, 1897);
   (b) *lucida* Lovén, 1846, as published in the binomen *Yoldia lucida* (specific name of type species of *Yoldiella* Verrill & Bush, 1897).

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Papers marked (i) contain descriptions of new species described in *Ledella* as though *L. bushae* were its type species; those marked * contain transferences to *Ledella* in that sense; that marked (iii) refers to *Ledella* used as though the true *L. messanensis* Seguenza were its type species.

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NEPA CINEREA LINNAEUS, 1758 (INSECTA, HETEROPTERA, NEPIDAE): PROPOSED CONSERVATION UNDER THE PLENARY POWERS. Z.N.(S.) 2144

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Linnaeus, 1758, p. 440, described under the name *Nepa cinerea* the well known water-scorpion. The description was accompanied by many references to the older literature. *Nepa rubra* was described by Linnaeus, 1758, on the same page as *N. cinerea* but several lines above. A more detailed description was published subsequently (Linnaeus, 1764).

2. Fabricius, 1794, p. 62, has used the name *Nepa rubra* Linnaeus for a nepid from the Oriental region, which is known now as *Laccotrephes kohlii* Ferrari, 1888. The name *Laccotrephes ruber* (Linnaeus, 1758) was used for this or related species by many authors (the last use to my knowledge by Hafiz and Pradhan, 1949).

3. Esaki, 1926, discovered that: a) the descriptions of *Nepa rubra* by Linnaeus, 1758, 1764, cannot be applied to any species of *Laccotrephes* and certainly apply to *Nepa cinerea*; b) the type specimen of *Nepa rubra* in the Linnean collection in the Zoological Museum of the University in Uppsala is a specimen of *Nepa cinerea* with expanded elytra and wings.

4. Tamanini, 1973, believed that the synonymy of *N. rubra* and *N. cinerea* established by Esaki, 1926, is wrong and the name *rubra* should be resurrected for the species of the genus *Laccotrephes*. His arguments against the synonymy with *N. cinerea* are: (i) the remark in Linnaeus, 1758: "habitat in calidis regionibus" shows that *N. rubra* is an extrapalaearctic species, while *N. cinerea* is unknown outside Palaearctica; (ii) the label under the supposed type specimen of *N. rubra*, according to a letter of Dr. Gustavson (Uppsala) to Esaki, was not written by Linnaeus himself, hence this specimen is possibly not the type. I think the objections of Tamanini cannot be taken into consideration.

5. Concerning the type locality of *N. rubra*, it is stated in Linnaeus, 1764: 'Habitat —'; it is evident from this remark that the origin of the type specimen was unknown to Linnaeus and his previous statement ("habitat in calidis regionibus") was only a supposition.

6. Concerning the label of *N. rubra*, the following explanation can be given. As can be seen from the photograph in Esaki, 1926, the label is not pinned under the specimen but is written on the bottom of the box. The inscription is 'rubra. Mus. Gust. Adolphi' and is made in two different handwritings. The inscription

'Mus. Gust. Adolphi' is certainly post-linnean, because Linnaeus died in 1778, whereas the Swedish King Gustav IV Adolph was born in 1778. It is known (Horn & Kahle, 1936, p. 285) that the collection of Queen Ludovica Ulrica, from which *N. rubra* was described, was bequeathed to Gustav IV Adolph and in 1803 was received by the University of Uppsala. The inscription 'Mus. Gust. Adolphi' is well explained by the history of this collection. It is not clear who made the inscription 'rubra'. Even if it was made not by Linnaeus himself but by somebody who rearranged the collection, it does not give any evidence, that the type specimen of *N. rubra* was confused, because this specimen is in full accordance with the original descriptions. Hence the synonymy of *N. rubra* with *N. cinerea* is supported not only by the type specimen but by the descriptions of Linnaeus, 1758, 1764, too, so I think this synonymy cannot be doubted.

7. Acting as first reviser, Esaki has employed the 'rule of page- and line-priority' which had been accepted by several zoologists and which Esaki took to be an officially accepted rule of nomenclature but which was never officially acknowledged except for a short period between 1948 and 1953 (see *Bull. zool. Nom.* vol. 4 pp. 328–330; *Copenhagen Decisions,* pp. 66–67). As a result of this oversight Esaki, 1926, changed the universally used name of a well-known insect *Nepa cinerea* to *N. rubra*. However, Esaki, 1928, himself and nearly all his contemporaries subsequently used the name *N. cinerea*. Stichel, 1934, 1955; Jordan, 1950 and Poisson, 1957 accepted Esaki's 1926 renaming and are followed in the last 20 years by many other hemipterologists (M. Josifov, I. Lansbury, R. Linnavuori, N. Nieser, G. Seidenstücker, E. Wagner and others), although many authors used *N. cinerea* as the valid name (Macan, 1956; Hoberlandt, 1959; Southwood and Leston, 1959; Soós, 1963; Kerzhner and Jaczewski, 1964; Putshkova, 1969; Kanyukova, 1973 and others) or returned to such use after the publication of Tamanini's paper (Ribes, 1974).

8. I think it would be desirable to suppress under the plenary powers the unfortunate first reviser action of Esaki, 1926, so as to validate the name *Nepa cinerea* and thus stabilize the nomenclature. The following information shows that *N. cinerea* is preferable to *N. rubra*:–

(i) *Nepa cinerea* was the binomen definitely proposed by Linnaeus for this well-known insect, while *Nepa rubra* was described as a distinct species owing to a mistake (see Esaki 1926).

(ii) The identity of *Nepa cinerea* was correctly determined by all zoologists while *Nepa rubra* was misidentified during more than 100 years.

(iii) *Nepa cinerea* was used as the valid name of the species by all authors from 1758 up to 1926, by the absolute majority of authors from 1926 up to 1955 and by many authors from 1955 up to now, e.g. more than 200 years, while *Nepa rubra* was used by authors only in the last 20 years.

(iv) *Nepa cinerea* was described from 'Europa' and since the species was known to Linnaeus from Sweden, Tamanini, 1973, restricted the type locality to Sweden. *Nepa rubra* is described from a specimen of unknown origin. Recently several subspecies of *N. cinerea* have been described from Western Mediterranean and from Siberia. In most cases the association of a given specimen to any subspecies cannot be established. If the name *Nepa rubra* were to be validated this would lead to uncertainty in the nomenclature of subspecies.

9. In accordance with the above, the International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to set aside the first reviser action of Esaki (1926);

(2) to place the following specific name on the Official List of Specific Names in Zoology:
cinerea Linnaeus, 1758, as published in the binomen *Nepa cinerea*;

(3) to place the following specific name on the Official Index of Rejected and Invalid Specific Names in Zoology:
rubra Linnaeus, 1758, as published in the binomen *Nepa rubra* (ruled under the plenary powers in (1) above to be a junior synonym of *Nepa cinerea* Linnaeus, 1758).

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EUTERMES EXITIOSUS HILL, 1925 (INSECTA, ISOPTERA): PROPOSED CONSERVATION BY USE OF THE PLENARY POWERS. Z.N.(S.)2290

By J.A.L. Watson & F.J. Gay (*Division of Entomology, CSIRO, P.O. Box 1700, Canberra City, A.C.T. 2601, Australia*)

The purpose of this proposal is to ask the International Commission to use its plenary powers to suppress a specific name because of the confusion that the adoption of the name would cause, and because it has not been used as a valid name for more than 50 years.

2. Walker, 1853, p. 525, described *Termes australis* from two alates in the British Museum (Natural History), the first mentioned from 'Adelaide' and the other from 'New Holland'. The Adelaide specimen was collected by A.H. Davis some time prior to 1844, when it was accessed from the Entomological Club into the collections of the Museum. The second specimen is apparently lost (W.A. Sands, personal communication).

3. Hagen, 1858, p. 173, identified as *Termes australis* alate material of unknown provenance in the Vienna Museum, and alates in his own collection from the East Indies, and described and figured them. The description does not agree closely with Walker's, and the figure (pl. 3, fig. 22) appears to be one of a kalotermitid, rather than a termitid.

4. Froggatt, 1898, p. 738, redescribed alates of *Termes australis* from dried material collected at light in Adelaide, and figured a wing (pl. 35, fig. 1). We have not been able to trace Froggatt's material, and its identity is uncertain. The description is generally compatible with Walker's, but differs in details of antennal segmentation, shape of pronotum, and wing venation, which are more closely comparable with those of species of *Coptotermes* Wasmann (Watson & Gay, 1980). Froggatt's illustration is not very informative; dimensions and venation do not agree with the description.

5. Desneux, 1904, p. 34, placed *australis* in *Coptotermes*, then regarded as a subgenus of *Termes* Linnaeus. He did not give reasons for this placement.

6. Bugnion & Popoff, 1910, p. 121, Holmgren, 1911, p. 73, and Mjöberg, 1920, p. 124, placed *australis* in the genus *Coptotermes*, also without comment.

7. Hill, 1926, p. 203, tentatively regarded *australis* as a *Coptotermes*, and discussed the problems associated with that placement. Unable to examine the types, he relied on notes made by Sir Guy Marshall. In a letter dated 3rd December, 1925, now

preserved in records associated with the Australian National Insect Collection, Canberra, Marshall compared 'the unique type' (presumably the second specimen, from New Holland, was already missing) with alates of *Coptotermes acinaciformis* (Froggatt) and *Coptotermes frenchi* Hill (then known as *Coptotermes flavus* Hill), the only species of *Coptotermes* known from Adelaide (Hill, 1942; Calaby & Gay, 1956). Marshall also sketched the surviving syntype. Hill concluded that if *australis* was indeed a *Coptotermes,* it was 'clearly distinct from any member of the genus as yet recorded from this Region'; and that the pronotum was 'distinctly *Eutermes*-like in outline'. The sketch, preserved with Marshall's letter, is a reasonable likeness of the Adelaide syntype, and confirms Hill's opinion (Watson & Gay, 1980).

8. Hill, 1942, p. 10, did not include *australis* in his account of the Australian Isoptera, on the grounds that it could not 'be identified with any more recently described species', and referred to Hill, 1926, p. 203. Snyder, 1949, p. 348, also regarded *australis* as a species that could not be classified, and provided a bibliography of it.

9. Watson & Gay, 1980, pp. 19–22, figs. 1–2, re-examined the Adelaide syntype of *Termes australis*, designated it the lectotype of the species, and showed that *Termes australis* is a senior subjective synonym of *Eutermes exitiosus* Hill, 1925.

10. Hill, 1925, p. 222, figs. 30–35, described *Eutermes exitiosus* from complete nest series from Ludlow, Western Australia, and other localities in the south-west of that State, and from South Australia and Victoria. In 1942, p. 214, figs. 111–113, he redescribed the species, including material from New South Wales and Queensland, and commented on its biology and economic importance.

11. Snyder, 1949, p. 276, transferred *exitiosus* to the genus *Nasutitermes* Dudley.

12. This species is one of the most extensively studied of the Australian termites, and causes substantial damage to timber in service. More than 50 papers, involving more than 20 authors, have been published from our laboratory alone, dealing with its taxonomy, general biology, development, behaviour, economic importance, and the resistance of materials. Other papers have been published from other laboratories, some directed specifically to non-entomologists involved in termite control. All these publications have referred to the species as *exitiosus*. The following fifteen references serve as examples, and satisfy the requirements of Article 79b: Holdaway, Gay & Greaves, 1935 (population of colonies); Fyfe & Gay, 1938 (relative humidity in mounds); Hill, 1942 (taxonomy, general biology); Holdaway & Gay, 1948 (temperatures in

mounds); Gay, Greaves, Holdaway & Wetherly, 1955 (standard techniques for laboratory testing of materials); Gay, Greaves, Holdaway & Wetherly, 1957 (standard techniques for field testing of materials); Moore, 1964 (pheromones); Rudman, 1965 (effects of extractives from resistant timber); Gay & Wetherly, 1969 (resistance of plastics); Gibbs, Gay & Wetherly, 1970 (termite virus); Lee & Wood, 1971 (termites and soils); McMahan and Watson, 1975 (development of castes); Kriston, Watson & Eisner, 1977 (behaviour of soldiers); McMahan, 1977 (polyethism); and Watson, Ruyooka & Howick, 1978 (caste composition and feeding activity). Because of the synonymy (paragraph 9 above) and the extent and diversity of non-taxonomic usage of the name *exitiosus*, we would prefer that the name *australis* be suppressed outright, rather than that its junior subjective synonym *exitiosus* be given nomenclatural precedence.

13. We therefore ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to suppress the specific name *australis* Walker, 1853, as published in the binomen *Termes australis*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the specific name *exitiosus* Hill, 1925, as published in the binomen *Eutermes exitiosus*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *australis* Walker, 1853, as published in the binomen *Termes australis*, and as suppressed by use of the plenary powers in (1) above.

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COCCUS LINNAEUS, 1758 AND *PARTHENOLECANIUM* ŠULC, 1908 (INSECTA, HOMOPTERA, COCCIDAE): PROPOSED DESIGNATION OF TYPE SPECIES UNDER THE PLENARY POWERS. Z.N.(S.)2125

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A preliminary discussion of the problems discussed in this application has been given by Morrison & Morrison, 1966, and Danzig, 1967. These problems should be solved so as to stabilize the nomenclature of scale insects of great economic importance.

2. The genus *Coccus* was described by Linnaeus, 1758, p. 455, with 17 originally included species. The genus is the type of the family COCCIDAE Fallén, 1814, which was the first family of scale insects to be named. Three separate originally included species were designated as type species in the 19th century (for several invalid type designations, see Morrison & Morrison, 1966).

3. Curtis, 1838, p. 717, designated *Coccus cacti* Linnaeus, 1758, p. 457, as type species. Linnaeus's species is now placed in the genus *Protortonia* (Family MONOPHLEBIDAE Signoret, 1875). It is clear, however, that Curtis misidentified that species and that his figures and descriptive remarks refer to *Dactylopius coccus* O. Costa, 1835 (Family DACTYLOPIIDAE Signoret, 1875).

4. Westwood, 1840, p. 447, designated *Coccus ilicis* Linnaeus, 1758, p. 455 as type species. This species is currently referred to the genus *Kermes* (Family KERMESIDAE Signoret, 1875).

5. Cockerell, 1899, p. 260, designated *Coccus phalaridis* Linnaeus, 1758, p. 456, as type species. The name of this species is regarded as a *nomen dubium* by modern coccidologists.

6. None of these three type-species designations was accepted by contemporaries, and none is accepted today. Acceptance of any of them would bring about very undesirable changes in the names of genera, tribes, subfamilies and families of scale insects.

7. Fernald, 1902, p. 232; 1903, p. 167, designated *Coccus hesperidum* Linnaeus, 1758, p. 455, as type species of *Coccus*, wrongly believing that this designation had been made by Sulzer, 1761. Sulzer, however, had only cited the species as an example of *Coccus*. Although some aberrant points of view on the type species of *Coccus* appeared in the literature approximately up to 1930, Fernald's type designation has received general recognition and is followed by all modern coccidologists without exception. We think that it would be the general wish of coccidologists that Fernald's designation be validated under the plenary powers.

8. The genus *Lecanium* was described by Burmeister, 1835, p. 69. *Coccus hesperidum* Linnaeus, 1758 was designated as type species by Cockerell, 1893, p. 49. The implication that *Lecanium* is a junior objective synonym of *Coccus* is accepted by many modern authors, either directly (Borchsenius, 1957; de Lotto, 1965; Danzig, 1967; Williams, 1969), or indirectly (Schmutterer, 1952; Řeháček, 1960; Boratynsky, 1970; Koteja, 1974, etc.).

9. Another tendency is to retain the name *Lecanium*, following wide use in previous literature, for a broad generic concept mostly uniting the genera *Eulecanium* Cockerell, 1893 and *Parthenolecanium* Šulc, 1908 (Sanders, 1909; Šulc, 1932; Takahashi, 1955; Richards, 1958; Phillips, 1965; Kawecki, 1967; Williams & Kosztarab, 1972, etc.). The supporters of this view do not indicate a type species for *Lecanium* as understood in this sense. It is not fully clear what they prefer: validation of *Lecanium* instead of the large and economically important *Eulecanium*, or in place of the smaller *Parthenolecanium*. The only exception is the paper by Sanders, 1909, in which *Chermes persicae* Fabricius, 1776, now referred to *Parthenolecanium*, was designated as type species. This was one of the species originally included in *Lecanium* by Burmeister, but the designation is more recent than that made by Cockerell.

10. In order to ascertain which course of action is preferred by specialists, we wrote to eight coccidologists. Professor Z. Kawecki (*Warsaw*) took the view that *Lecanium* should be retained because, as Sanders stated in 1909, 'it is impossible to eliminate *Lecanium* from our Coccid nomenclature', but he did not say what species should be designated as type. Professor A. Balachowsky (*Paris*), Dr. K. Boratynski (*London*), Professor M. Kosztarab (*Blacksburg*), Dr. J. Koteja (*Cracow*), Mr. G. de Lotto (*Pretoria*), Dr. D. Miller (*Beltsville*) and Dr D. Williams (*London*) all held that *Lecanium* should be treated as a junior synonym of *Coccus*. Our own view is that to retain *Lecanium* now would introduce more confusion than stability in the nomenclature of scale insects, and we recommend its rejection.

11. The genus *Eulecanium* was described by Cockerell, 1893, p. 54, originally as a subgenus of *Lecanium*. The type species, by original designation, is *Coccus tiliae* Linnaeus, 1758, p. 456. The name is used in a broad sense to include *Parthenolecanium* as a synonym of *Lecanium* by those workers who prefer to retain this last name.

12. The genus *Pathenolecanium* was described by Šulc, 1908, p. 36. The type species, by original designation, is *Coccus coryli* Linnaeus, 1758, p. 456. The genus is differentiated from *Eulecanium* by a large number of significant characters

(Borchsenius, 1957; Danzig, 1967, and others). However, the identity of *C. coryli* is treated differently by different authors. Marchal, 1908, treated it as a senior synonym of *C. tiliae* Linnaeus, 1758, while Šulc, 1908, 1932, treated it as a senior synonym of *Lecanium corni* Bouché, 1844. The resulting instability of nomenclature can be seen from the following comparison (other examples are discussed by Kawecki, 1958a, 1958b):

	Parthenolecanium	*Eulecanium*
Marchal, 1908	*corni*	*coryli* (= *tiliae*)[1]
Šulc, 1908	*coryli*	*capreae* (= *tiliae*)[2]
Šulc, 1932	*coryli* (= *corni*)	*tiliae*
Borchsenius, 1957	*corni*	*tiliae*[3]
Richards, 1958	*coryli* (= *corni*)	*tiliae*
Kawecki, 1958a, 1958b	*corni*	*coryli* (= *tiliae*)
Řeháček, 1960	*corni*	*coryli*
Phillips, 1965	*coryli* (= *corni*)	not mentioned
Williams & Kosztarab, 1972	*corni*	not mentioned
Danzig, 1972	*corni*	*tiliae* (= *coryli*)

NOTES

1. In this paper Marchal as first reviser gave priority to *C. coryli* over *tiliae*.
2. *C. capreae* Linnaeus, 1767 is a junior synonym of *C. tiliae* Linnaeus, 1758.
3. *C. coryli* is regarded in this work as a '*nomen nudum*' (in the sense of '*nomen dubium*').

13. *Coccus coryli* and *C. tiliae* were established by Linnaeus in 1758 without descriptions, but with references to descriptions and figures given by Réaumur, 1738. It is well known that Réaumur's and Linnaeus's collections of scale insects cannot be found and may never have existed, because descriptions were prepared from living material. Šulc, 1932, concluded from a study of Réaumur's description and figures that *C. coryli* was certainly identical with *Parthenolecanium corni* but not with *Eulecanium tiliae*. Šulc's view was criticised by Kawecki, 1958a, 1958b. We agree with Kawecki that Réaumur's description and figures are not enough for an exact identification. Marchal and Kawecki's view on the identity of *C. coryli* with *C. tiliae* is accepted by the majority of coccidologists. On the other hand, *P. corni* is very common on *Corylus*, while *E. tiliae* is rare. This argues in support of Šulc's view and for restoring the nomenclature used by him. In contrast with *C. coryli*, the application of the names *C. tiliae* Linnaeus and *Lecanium corni* Bouché has been the same in all works.

14. As the name *Coccus coryli* has been a source of confusion for so long, and as the doubtful identity of the species is a

possible cause of endless discussion and instability of nomenclature, we ask for the suppression of that name under the plenary powers and for the designation of *Lecanium corni* Bouché as type species of *Parthenolecanium*.

15. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers
  (a) to suppress the specific name *coryli* Linnaeus, 1758, as published in the binomen *Coccus coryli*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;
  (b) to set aside all designations of type species for the genus *Coccus* Linnaeus, 1758, made prior to the ruling here requested and having done so to designate *Coccus hesperidum* Linnaeus, 1758, to be the type species of that genus;
  (c) to set aside all designations of type species for the genus *Parthenolecanium* Šulc, 1908, made prior to the ruling here requested and having done so to designate *Lecanium corni* Bouché to be the type species of that genus;

(2) to place on the Official List of Generic Names in Zoology:
  (a) *Coccus* Linnaeus, 1758 (gender: masculine), type species, by designation under the plenary powers in (1) (b) above, *Coccus hesperidum* Linnaeus, 1758;
  (b) *Eulecanium* Cockerell, 1893 (gender: neuter), type species, by original designation, *Coccus tiliae* Linnaeus, 1758;
  (c) *Parthenolecanium* Šulc, 1908 (gender: neuter), type species, by designation under the plenary powers in (1) (c) above, *Lecanium corni* Bouché, 1844;

(3) to place on the Official List of Specific Names in Zoology:
  (a) *hesperidum* Linnaeus, 1758, as published in the binomen *Coccus hesperidum* (specific name of type species of *Coccus* Linnaeus, 1758);
  (b) *tiliae* Linnaeus, 1758, as published in the binomen *Coccus tiliae* (specific name of type species of *Eulecanium* Cockerell, 1893);
  (c) *corni* Bouché, 1844, as published in the binomen *Lecanium corni* (specific name of type species of *Parthenolecanium* Šulc, 1908);

(4) to place the generic name *Lecanium* Burmeister, 1835 (a

junior objective synonym of *Coccus* Linnaeus, 1758) on the Official Index of Rejected and Invalid Generic Names in Zoology;

(5) to place the specific name *coryli* Linnaeus, 1758, as published in the binomen *Coccus coryli*, and as suppressed under the plenary powers in (1) (a) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.

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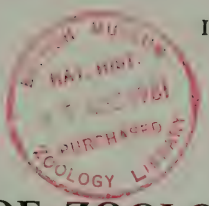

THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

The Official Organ of

THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

LONDON

International Trust for Zoological Nomenclature
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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 38, part 3 (pp. 153–228), 30 July, 1981

NOTICES

(a) *Date of commencement of voting.* In normal circumstances the Commission may start to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.* The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* (those marked with an asterisk involve the application of Articles 23a-b and 79b):

*(1) TEIIDAE Gray, 1827 (Reptilia, Sauria): proposed conservation. Z.N.(S.) 1920. W. Presch.

(2) *Ahautlea* de la Llave, 1832 (Insecta, Heteroptera, Corixidae): proposed suppression under the plenary powers. Z.N.(S.) 2299. A. Jansson.

(3) To grant precedence to the family-group name EPHYDRIDAE over HYDRELLIIDAE (Insecta, Diptera). Z.N.(S.) 2334. W.N. Mathis.

*(4) *Nabis capsiformis* Germar, [1838] (Insecta, Heteroptera, Nabidae): proposed conservation. Z.N.(S.) 2147. I.M. Kerzhner.

(5) *Clytia* Lamouroux, 1812, *Laomedea* Lamouroux, 1812, and *Campanularia* Lamarck, 1816 (Coelenterata, Hydroida): proposed designations of type species and comments on related genera. Z.N.(S.) 2326. P.F.S. Cornelius.

(6) *Semblis marginata* Panzer, 1799 (Insecta, Plecoptera): additional steps needed to conserve this name. Z.N.(S.) 1799. The Secretary.

(7) *Nomioides* Schenck, 1866: proposed designation of type species (Insecta, Hymenoptera, Halictidae). Z.N.(S.)2178. Y.A. Pesenko & I.M. Kerzhner.

(8) Corrections to data of three family-group names of butterflies on the official list (Insecta, Lepidoptera). Z.N.(S.) 2187. C.F. Cowan.

(c) *Receipt of new applications.* The following new applications have been received since the publication of vol. 38(2)

on 30 April, 1981. Those marked with an asterisk involve the application of Articles 23a-b and 79b.

(1) UROPLATINI in Amphibia & Coleoptera: proposals to remove the homonymy. Z.N.(S.) 2373. H.M. Smith.

(2) *Humerobates* Sellnick, 1929 (Acari, Oribatei, HUMEROBATIDAE): proposal to designate type species. Z.N.(S.) 2374. R.A. Norton.

*(3) *Dromophis* Peters, 1869 (Reptilia: Serpentes): proposed validation. Z.N.(S.) 2375. D.G. Broadley.

(4) *Paracanthonchus* Micoletzky, 1924 (Nematoda): proposed designation of type species. Z.N.(S.) 2376. N. Smol, M. Vincx & J. Sharma.

*(5) *Ichnotropis* Peters, 1854 (Reptilia: Sauria): proposed validation. Z.N.(S.) 2377. W.R. Branch & D.G. Broadley.

*(6) *Scarabaeus* Linnaeus, 1758 and *Dynastes* MacLeay, 1819 (Insecta, Coleoptera); proposed conservation. Z.N.(S.) 2378. J. Baraud & F. Chalumeau.

*(7) *Syphonosoma cumanense* Keferstein, 1867 (Sipuncula): proposed conservation. Z.N.(S.) 2379. E.B. Cutler.

SPECIAL ANNOUNCEMENTS

NOTICE OF IMPENDING VACANCIES ON THE COMMISSION

This notice is issued under Article 4 of the Constitution of the International Commission on Zoological Nomenclature and announces the names, nationalities and fields of specialisation of the following members of the Commission whose terms of service will expire at the close of the next meeting (in 1982) of the Division of Zoology of the International Union of Biological Sciences.

HABE, Prof. T., Japan. Marine Biology
HEPPELL, Mr D., United Kingdom. Mollusca
NYE, Dr I.W.B., United Kingdom. Lepidoptera
WILLINK, Prof. A., Argentina. Neotropical Hymenoptera
TORTONESE, Prof. E., Italy. Pisces; Echinodermata.

Article 2b of the Constitution states: 'The members of the Commission shall be eminent zoologists, irrespective of nationality, with a distinguished record in any branch of zoology, who are known to have an interest in zoological nomenclature'. Nominations are now invited for successors having these qualifications to be elected to the places vacated. The retiring members may themselves be nominated, but Dr Nye and Professor Tortonese have intimated

that they do not wish their names to be put forward. The Council, acting under Article 3b, has decided that Professor Habe, Mr Heppell and Professor Willink are eligible to be nominated.

The Commission wishes to receive more nominations than there are vacancies, so as to be able to make a genuine choice between candidates and to maintain a balanced geographical and disciplinary representation.

THE INTERNATIONAL CODE ON ZOOLOGICAL NOMENCLATURE

It is with regret that we announce a delay in the printing of the 3rd edition of the Code. It is still hoped that this will appear before August 1982.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
June 1981

THE INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

The Trust (Registered Charity No. 211944) will shortly be launching a world-wide appeal for more funds for the International Commission on Zoological Nomenclature.

The Commission has to plan for expansion to meet the growing demand for its work and for the needs of zoologists in the developing countries. It must be able to maintain its reliable service to all zoologists and paleontologists.

Readers are invited to help make this forthcoming appeal a success by agreeing to assist in one or more of the following ways:

1 — to give a donation
2 — to subscribe to the *Bulletin of Zoological Nomenclature*
3 — to supply the name and address of anyone they know who may be willing to give financial assistance or to whom an approach may be made.

The address to send help in the way suggested, or for any further information, is:

Dr F.G.W. Jones, Managing Director and Secretary,
The International Trust for Zoological Nomenclature,
c/o British Museum (Natural History),
Cromwell Road, London, SW7 5BD, United Kingdom

THE AUTHORSHIP OF THE FAMILY NAME METRIDIIDAE (COELENTERATA: ANTHOZOA)

Z.N.(S.)2263

(see vol. 36, part 1, pp. 53–56)

By R.B. Williams (*2, Carrington Place, Tring, Herts., HP23 5LA*)

The family name METRIDIIDAE has been applied both to anthozoans (Coelenterata) and to copepods (Arthropoda). Dunn and Hulsemann (1979) have suggested a satisfactory solution to this problem of homonymy but the name METRIDIIDAE applied to anthozoans and recommended for inclusion in the Official List of Family-Group Names in Zoology should be attributed not to Carlgren (1893) as stated, but to Gosse (1858).

2. Dunn and Hulsemann (1979) noted Gosse's (1859a) use of the name METRIDIADAE but regarded it as unavailable since it is apparently a *nomen nudum*. However, Gosse's book '*Actinologia Britannica. A History of the British Sea-Anemones and Corals. With Coloured Figures of the Species and Principal Varieties*' which bears the date 1860 on its title page is a second issue of '*Actinologia Britannica: A History of the British Sea-Anemones and Madrepores. With Coloured Figures of All the Species*' which was published in twelve parts during 1858 and 1859 (Williams, in preparation) and contains the first valid use of the name METRIDIADAE.

3. The name METRIDIADAE, with no definition, appears on p.9 of the second (book) issue of Gosse's (1859a) *Actinologia Britannica'*. The leaves comprising pp. 7–10 of this book were originally published as a cancellans in part 12 (Gosse, 1859b) of the first (parts) issue to replace the original pp. 7–10 in part 1 (Gosse, 1858): on p.8 of part 1 the name METRIDIADAE was validly published with a definition, including the four genera *Metridium, Actinodendron, Thalassianthus* and *Actineria*.

4. Despite the fact that Gosse made this substitution of pp. 7–10 in the parts issue (probably belatedly considering the original detailed account of the family irrelevant, as he thought it had no European representatives), his first version makes the name METRIDIADAE available. This has previously been overlooked because when parts issues were bound, the binders usually discarded the cancellandum. In the book issue, which was sold already bound, there is no indication that pp. 7–10 comprise a cancellans. It is necessary to examine a set of the parts as issued in wrappers to establish this fact, but they are very rare.

5. On the basis of the foregoing evidence, the anthozoan family name METRIDIADAE Gosse is not a *nomen nudum* and should be listed as METRIDIIDAE Gosse, 1858 (p. 8), taking priority over METRIDIIDAE Carlgren, 1893.

REFERENCES

CARLGREN, O., 1893. Studien über nordische Actinien. *K. svenska Vetenskapsakad. Handl.*, vol. 25(10), pp. 1–148.

DUNN, D.F. & HULSEMANN, K. 1979. Metridiidae Carlgren, 1893 (Anthozoa) and Metridiidae Sars, 1902 (Copepoda): request for a ruling to

eliminate the homonymy. Z.N.(S.)2263. *Bull. zool. Nom.*, vol. 36, pp. 53–56.

GOSSE, P.H. 1858. *Actinologia Britannica: A History of the British Sea-Anemones and Madrepores. With Coloured Figures of All the Species.* Part 1. Van Voorst, London.

—— 1859a. *Actinologia Britannica: A History of the British Sea-Anemones and Madrepores. With Coloured Figures of All the Species.* Part 12. Van Voorst, London.

—— 1859b. *Actinologia Britannica. A History of the British Sea-Anemones and Corals. With Coloured Figures of the Species and Principal Varieties.* Van Voorst, London.

SPHAERIIDAE IN MOLLUSCA AND INSECTA: COMMENTS ON PROPOSALS TO REMOVE THE HOMONYMY. Z.N.(S.) 1892

(see *Bull. zool. Nom.* vol. 32, pp. 60–62, 201–204)

(1) By Paul J. Spangler (*National Museum of Natural History, Washington D.C. 20560, U.S.A.*)

I am at present preparing an article on the 'minute bog beetle' family SPHAERIDAE, SPHAERIIDAE, MICROSPORIDAE, or whatever name is eventually applied to them. Also I will soon be describing one or more new species of '*Sphaerius* Waltl' from South America. These studies have led me to the proposal on the homonymy in family-group names in the *Bull. zool. Nom.* and have prompted the following comments.

Because it seems clear that SPHAERIIDAE for the Mollusca has priority over its use in Insecta, my comments are directed at a replacement name for the beetle family. I am opposed to using the family name SPHAERIDAE (Insecta) versus SPHAERIIDAE (Mollusca) for the following reasons:

(1) The name SPHAERIDAE would be grammatically incorrect and thus a perpetual error; (2) both names will inevitably be mis-spelled in the literature from time to time in the future and will be a recurring nuisance from that standpoint; (3) both spellings are already very similar to others in general use, such as *Sphaeridium*, SPHAERIDIIDAE, *Sphaerites*, SPHAERITIDAE, etc. Emendations such as SPHAERIDAE, SPHAERIUSIDAE or SPHAERIURIDAE would not alleviate this excess of names based on similar stems.

Therefore I believe that the suggestion that 'it is better to rename the beetle family after a genus other than *Sphaerius*, if one exists' as suggested by Professor Tortonese (*Bull. zool. Nom.* vol. 32, p. 60, 1975) and seconded by the late Dr Reichardt (vol. 32, p. 203, 1976) has considerable merit. In this case another name, *Microsporus* Kolenati, 1846, *Meletemata entomol.*, fasc. 5, p. 64 (type species of nominal genus, *M. obsidianus* Kolenati ibid., by monotypy) exists as a synonym of *Sphaerius* Waltl. Although *Microsporus* was originally proposed for a subgenus of *Georyssus* Latreille, 1809, it was treated as a synonym of *Sphaerius* by Matthews, 1899, *Monograph of the Coleopterous families Corylophidae and Sphaeriidae* (London) and this synonymy has been accepted by subsequent coleopterists. I therefore support Reichardt's suggestion that *Microsporus* be made the

nomenclaturally valid name of the genus and that the family name be changed to MICROSPORIDAE. This action would (1) solve the homonymy problem between the Mollusca and the Insecta and differentiate the beetle family name from the many names derived from similar stems, (2) eliminate the grammatically incorrect name SPHAERIDAE, (3) provide a highly descriptive generic and family name for the beetles involved, and (4) provide final stability for the beetle family name after many years of uncertainty. Furthermore,since Article 79c excludes the citing of precedents on the basis of earlier Opinions, analogous requests should be few and the final decision would still lie in each case with the consensus of the Commission and the zoologists concerned.

Undue delay in stabilising this problem of homonymy will only increase the problem. For example, since the question was first laid before the Commission, Abdullah (*Zool. Beitr.* vol 19, pp. 24, 26, 1973) has established a 'Series Sphaeriformia Abdullah, nov.' based on *Sphaerius* Waltl in the coleopteran suborder Myxophaga. Abdullah further stated (p. 41) that the molluscan family name PISIDIIDAE had been approved by the Commission. Perhaps most of the damage has been done, but a prompt decision should stop the proliferation of incorrect citations. In addition, contributors to the new Catalog of Coleoptera of North America north of Mexico, which is well under way, would benefit from a prompt decision.

[*Note by the Secretary*.- The family name PISIDIIDAE Gray, 1857, was added to the Official List in Direction 27 (*Ops. Decls. int. Comm. zool. Nom.* vol. 10, pp.481–492) 'for use by any worker who may consider that the genera *Pisidium* Pfeiffer and *Sphaerium* Scopoli, 1777, the type genus of the taxon SPHAERIIDAE, belong to different family-group taxa'. That ruling clearly does not preempt a ruling placing SPHAERIIDAE on the Official List.

Dr Spangler's comment involves the following proposals to the Commission:

(a) use of the plenary powers to suppress the generic name *Sphaerius* Waltl,1838 and all subsequent uses for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(b) placing *Microsporus* Kolenati, 1846 (gender: masculine), type species, by monotypy, *Microsporus obsidianus* Kolenati, 1846, on the Official List of Generic Names in Zoology;

(c) placing *obsidianus* Kolenati, 1846, as published in the binomen *Microsporus obsidianus* (specific name of type species of *Microsporus* Kolenati, 1846) on the Official List of Specific Names in Zoology;

(d) placing the family name MICROSPORIDAE Reichardt, 1976 (type genus *Microsporus* Kolenati, 1846) on the Official List of Family-Group Names in Zoology.

R.V.M.]

(2) By Dr Y.I. Starobogatov

(Letter received 24 August 1979): In 1798 Bruguière introduced *Cyclas* without description or species included by name, but accompanied by an illustration of *Sphaerium rivicola* of recent authors. In the following year Lamarck referred the sole species *Tellina cornea* Linnaeus, 1758 to the genus. But Lamarck's species is a composite, including *Cyclas rivicola* Lamarck, *Sphaerium scaldianum*

Normand and (formally by name) *Tellina cornea* L. This allows me to treat Lamarck's *Tellina cornea* as a misidentification (see also Children, 1823, *Q.J. Sci. Lit., Arts*, vol. 14, p. 310). Children designated '*Cyclas rivicola* Lamarck (*Cyclas cornea* Draparnaud)' as type species of *Cyclas*. This was accepted by Keen, 1969, *Treatise invert. Paleont.* pt. N, vol. 2, p. 670.

I ask the Commission to designate *Cyclas rivicola* Lamarck, 1818 as type species of *Cyclas* Bruguière, 1798, regardless of any other designation. This would give the family name CYCLADIDAE Rafinesque, 1820, priority over PISIDIIDAE Gray, 1857 and SPHAERIIDAE Jeffreys, 1862 (the last is a junior homonym of SPHAERIIDAE Erichson, 1845, Coleoptera). It would also give the generic name *Cyclas* to the group generally known as *Sphaeriastrum* Bourguignat, 1854, *Mém. Soc. Sci. phys. nat. Bordeaux*, vol. 1, pp. 161–162, but that name was originally connected with *Sphaerium corneum* and is thus a junior objective synonym of *Sphaerium*.

Authors who wish to use *Sphaerium* in the widest sense may include both *Tellina cornea* Linnaeus and *Cyclas rivicola* Lamarck in it, but this does not prevent the use of CYCLADIDAE for the family.

[*Note by the Secretary*.- In reply to that letter I pointed out to Dr Starobogatov that the first author to misidentify *Tellina cornea* Linnaeus, 1758 was Draparnaud, and that it is clear from Lamarck's 1799 and 1818 works that he distinguished between *T. cornea* L. (type species of both *Sphaerium* Scopoli, 1777 and *Cyclas* Bruguière, 1798) and *T. cornea* Draparnaud, *non* L. = *Cyclas rivicola* Lamarck, 1818. To adopt CYCLADIDAE (invalid because the name of its type genus is a junior objective synonym) would involve the use of the plenary powers to designate *C. rivicola* as the type species of *Cyclas*, and to suppress *Sphaerium* in such a way that it could never again be used as the basis of a family-group name. This would revive a generic name (*Cyclas*) that had not been used for many decades and suppress a generic name that had been in general use for a similar period — and all to replace a well-known family name by an unused one.]

(Letter received 26 November 1979): If the family name CYCLADIDAE is conserved, the generic names *Sphaerium* and *Cyclas* can still be used for different genera so long as *C. rivicola* is designated as type species of *Cyclas* as I request. It is highly unlikely that anybody would regard these genera as belonging to separate families, but there are three possible solutions to that problem: (1) to suppress *Sphaerium* (the least desirable, as the name is already on the Official List); (2) to emend the spelling of SPHAERIIDAE in one of the ways that has been proposed; (3) to defer consideration of the problem, until it arises in the future. I am against the first, but indifferent as between the second and third.

This would provide a valid name for the *Cyclas rivicola* group, for which no generic name is available, conserve the oldest available name (*Sphaerium*) for the *Tellina cornea* group, and solve the problem of homonymy of SPHAERIIDAE in Bivalvia and Coleoptera.

(3) By Mr J.G.J. Kuiper
(*c/o 121 rue de Lille, 75007 Paris, France*)

After nearly a century of confusion in Sphaeriid taxonomy and nomenclature, mainly due to the 19th century species concept in this group, a measure of uniformity in both aspects has now been reached in all European countries outside the Soviet Union. Since Woodward, 1913, *Catalogue of the*

British Species of Pisidium, Brit. Mus. (nat. Hist.), three generations of workers have contributed to this precious result, which is summarised by Bowden & Heppell, 1968, *J. Conchol.*, vol. 26(4), pp. 237–272. Thanks to this stability of taxonomy and nomenclature, a growing interest in this formerly neglected group of bivalves can be observed, not only among taxonomists, but also among ecologists, limnologists, physiologists, embryologists, geologists, parasitologists, etc. This would not have been possible under conditions of taxonomic and nomenclatural instability. If the present situation is to be changed, solid arguments must be produced. I find in Dr Starobogatov's statements a strong personal conviction, and I respect his right to hold it, but I see no convincing arguments for changing the current nomenclature, which is not only stable, but is in conformity with the Code.

It is not strictly true, as Dr Starobogatov says, that there is no generic name available for the *Cyclas rivicola* group. *Sphaeriastrum* Bourguignat, 1854, *Mém. Soc. Sci. phys. nat. Bordeaux*, vol. 1, pp. 161–162 was established for *C. rivicola* and seven other species. *Cyclas rivicola* Lamarck, 1818, *Hist. Anim. s. Vert.* vol. 5, p. 558 was designated as type species by Westerlund, 1902, *Rad. jugosl. Akad. Znan. Umjetn.* vol. 151, p. 134. Most European authors outside the Soviet Union, including Bowden & Heppell, 1968, treat it as a subgenus of *Sphaerium*. *Cyclas* is, as the Secretary has shown, a junior objective synonym of *Sphaerium*.

Dr Starobogatov says (*Bull. zool. Nom.* vol. 32, p. 201) 'Analysis of all Lamarck's descriptions of both *Cyclas* and *Cyclas cornea* proves that his and Linnaeus's species are not conspecific', but in fact there is much room for doubt on this point. The 'ligament extérieur' mentioned by Lamarck is common to all eleven species of *Cyclas* listed by Lamarck, and these include two species of *Pisidium* (*obtusale* and *fontinale*) and one of *Kellia* (*australis*; I have examined Lamarck's types). It is not at all certain what Lamarck meant by this character. Dr Starobogatov also mentions a 'protruded external ligament' (not mentioned by Lamarck). But 'ligament extérieur' can also mean an externally visible but not protruding ligament, as is seen in immature *S. rivicola* and some forms of *S. corneum*.

Dr Starobogatov also argues that '*Sphaerium corneum* never lives in small rivers and streams but only in ponds, ditches and lakes with muddy bottoms'. This is only acceptable if *S. scaldianum* and *S. corneum* are held to be specifically different. All modern malacologists outside the Soviet Union consider *S. scaldianum* an ecological infrasubspecific form of *S. corneum*. I have found *S. corneum* in the surroundings of Paris in waters of all kinds, including brooklets near their sources.

European malacologists recognise three genera of SPHAERIIDAE: *Pisidium* with 20 species, *Musculium* with two and *Sphaerium* with four. Soviet malacologists recognise 7 genera, 12 subgenera and 70 species. These differences reflect differences in taxonomic thinking, not a genuine faunal difference (I have examined Soviet sphaeriids in the Leningrad Museum and have found them to belong to the same species as are found in western Europe). The causes of these differences are no doubt complex. It is difficult for Soviet malacologists to examine original types in western museums, so that they are obliged to turn to often incomplete and ambiguous early descriptions. It seems to me that their statistical analyses are not always based on sufficiently large samples and that their biogeographical conclusions make too little allowance for dispersal by birds and insects and for self-fertilisation in SPHAERIIDAE. They are, of course, entitled to

their own ideas and taxonomic methods, but not to upset a nomenclature that has been stable for so long. It may be observed that the Secretary's proposals (*Bull. zool. Nom.* vol. 32, pp. 60–62) involve the direct application of the Code without any use of the plenary powers where the Mollusca are concerned. Dr Starobogatov's proposals invite the use of the plenary powers in a sense contrary to stability and uniformity of nomenclature.

FURTHER COMMENTS ON THE CONCEPTS OF PARANOMENCLATURE Z.N.(S.) 1973

(See vol. 36, pp. 11–14; vol. 37, pp. 141–144)

R.W. Huddleston (*Chevron Oil Field Research Company, P.O. Box 446, La Habra, California, U.S.A.*).

In response to Mr. Melville's reply to my comments on paranomenclature (*Bull. zool. Nom.* vol. 37, pp. 141–142) I acknowledge that there may be whole groups of fossils where a dual taxonomy could prove necessary. I maintain,however, that these groups of fossils are not vertebrates nor do these groups possess the structural complexity found in the vertebrate skeleton.

In defense of paranomenclature, Mr. Melville pointed to the examples of ammonites and their aptychi as well as holothurians and detached spicules; rhyncholites and nautiloids, as areas where paranomenclature concepts could benefit taxonomic problems. However, in all of these invertebrate groups it is an 'either-or' situation. Either one element is present (i.e. nautiloid shell) or the other element is present (i.e. rhyncholite). Among fossil vertebrates it is not a simple 'either-or' situation. The large number of individual elements comprising the vertebrate skeleton vary considerably in their individual diagnosticity and preservability in the fossil record. Vertebrates are represented in the fossil record by material ranging from single elements to hundreds of different elements. The question remains, at what stage of completeness or incompleteness are these fossil vertebrate remains classed as taxa and parataxa.

At the extreme end of incompleteness are the single elements such as the isolated teeth in mammals, elasmobranchs and holocephalians and otoliths in teleostean fishes. The diagnosticity of these elements is so significant as to be of greater taxonomic value than more complete fossils lacking these elements.

It is the degree of structural complexity in the vertebrate skeleton, rarity of complete vertebrate skeletons in the fossil record and the inadequate definition of 'whole' or 'more complete' fossils upon which paranomenclatural concepts rest that are the greatest concerns in the application of paranomenclatural concepts to fossil vertebrates.

If parataxonomy is to be applied indiscriminately to all fossil groups regardless of whether it is needed or not, some system will have to be established to define at what stage of completeness fossil vertebrate remains are considered taxa or parataxa. This distinction between which remains are considered taxa and which are parataxa is not a trivial matter, especially in view of the fact that names for parataxa will not compete for priority with names for taxa. The concept of priority is fundamental. The preamble to the International Code of Zoological Nomenclature states, 'Priority is the basic principle of zoological nomenclature.'

I believe that to apply paranomenclature to fossil vertebrates, in which no

clear delineation between the various degrees of completeness can be made, would generate instability in the nomenclature of this group. This instability would result from the various conflicting independent subjective judgements as what forms compete for priority and which forms do not.

I realise that the concept of paranomenclature is not to provide a separate nomenclature for fragments of any and every kind; it nevertheless gives 'official' sanctions to such activities, which even Mr. Melville agrees (*Bull. zool. Nom.* vol. 37, p. 143) would lead to chaos.

I strongly urge that before a concept such as paranomenclature (affecting the fundamental principle of priority) is incorporated into the Code and applied to all fossil groups, that its potential, far reaching effects are more fully and carefully examined. Mr. Melville has pointed out several areas where such concepts are needed. My concern is for those areas (i.e. vertebrates) which are not in need of paranomenclatural concepts but which would nevertheless be strongly affected by its incorporation into the Code.

The current definition of paranomenclature coupled with the complexity of the vertebrate structure and the imperfection of the fossil record creates a dangerous combination which contributes to the instability of many vertebrate fossil names on a nomenclatural basis.

My concerns do not involve some 'naturally inherent quality of the animals', to quote Mr. Melville, nor does it advocate constraints or barring of taxonomic thought. It is simply a concern that paranomenclature applied to vertebrate fossils will generate instability and confusion as to which fossils would be taxa and which would be parataxa.

What I have tried to explain is not how paranomenclature will affect those groups of invertebrates where Mr. Melville proclaims their necessity, but rather the problem of applying the definition of paranomenclature to those groups possessing such structural complexity as the vertebrates. I see no orderly way to apply paranomenclature to vertebrate fossils without disrupting traditional views on the nomenclature of this group or without affecting an orderly flow of nomenclatural concepts.

Once again I strongly urge that at least fossil vertebrates be excluded from coverage under the proposed concepts of paranomenclature.

Acknowledgements

I thank Chevron Oil Field Research Company for permission to publish these comments and to D. Haman of Chevron Oil Field Research Company for helpful comments and review of this note.

CONSTITUTION, ARTICLE 3: PROPOSED NEW METHOD FOR DETERMINING THE TERM OF SERVICE OF MEMBERS OF THE COMMISSION. REPORT OF SUBCOMMITTEE APPOINTED AT HELSINKI. Z.N.(G.) 181/2.

In a letter to the Council dated 24 July 1979 Mr. Heppell voiced dissatisfaction with the procedures leading up to the nomination of retiring members of the Commission for possible re-election at a 'Congress' (i.e. a meeting of the Section on Zoological Nomenclature and the Division of Zoology of IUBS). His letter was discussed at the General Meeting of the Commission at Helsinki in 1979, and he and the Secretary were appointed as a subcommittee to consider these questions.

2. The Constitution (Article 2a) at present provides that the term of that one-fifth of the members who have had the longest service terminates at the close of each 'Congress'. As the present 'Congress' meets every three years, this provision implies that the normal term of office of a member is 15 years. In practice, however (as Mr. Heppell showed in tabular form), the retiring one-fifth scarcely, if ever, consists of members who have all served 15 years. The intervention of retirement at age 75, of resignations and of death leads inevitably to the advancement in seniority of members lower down the list, and this is aggravated if the interval between 'Congresses' becomes irregular for any reason. Thus, of the five members retiring at the Helsinki 'Congress', three had been elected in 1968, and two in 1972.

3. Mr. Heppell's proposals for remedying this situation (in which the facts clearly did not correspond to expectations) involved all the members elected at a given Congress being grouped in a Class together with those elected since the preceding Congress. All the members of a Class would have equal seniority and would retire simultaneously. Our proposals follow that model.

4. It may be helpful to have something of the historical background explained. From 1904 (Berne) to 1948 (Paris) the Commission's members were grouped in precisely the sort of classes envisaged by Mr. Heppell. Each class retired automatically at the close of a Congress and was known as the class of the year in which it retired. In those days, members were automatically eligible for re-election. The present system of rotation was introduced at Paris in 1948 and was merely adapted to the conditions of life in IUBS in 1973. Under that scheme, however, members elected in inter-Congress periods to fill casual vacancies served only for the unexpired part of the term of their predecessor, or otherwise were placed in the class whose term of service was to expire first. We do not propose to re-introduce this provision.

5. Our proposals, which consist of a re-draft of Article 3a of the Constitution, are appended. If accepted by the Commission and by the next 'Congress' (Ottawa, 1982), the first formation of the members into classes would take place after that 'Congress'. It is interesting to see how the first set of classes would be made up:

(a) the senior class would presumably consist of the members still outstanding from those elected at Monaco in 1972 (i.e. those not considered at Ottawa). These number 7 (Brinck, Alvarado, Binder, Vokes, Holthuis, Bernardi, Dupuis);

(b) the next senior class would consist of those elected between the close of the Monaco Congress and the close of the Bangalore 'Congress'. These number 6 (Mroczkowski, Welch, Kraus, Ride, Sabrosky, Cogger);

(c) the next senior class would consist of those elected between the close of the Bangalore 'Congress' and the close of the Helsinki 'Congress'. These number 7 (Hahn, Halvorsen, Trjapitzin, Bayer, Corliss, Starobogatov, Melville);

(d) the most junior class would consist of those elected between the close of the Helsinki 'Congress' and the close of the Ottawa 'Congress'.

At the outset, therefore, there would be only four classes instead of the full number of five envisaged in our proposals. This is because the most senior class will be empty, all its members having been lost to the Commission or already re-elected to serve in a more junior class. Thus, unless Council should decide to terminate the term of service of that class prematurely (Article 3a (vii) of our proposals), there would be no vacancies arising from its expiry in 1985; and the class whose term would end in the year 2000 would comprise members elected to fill vacancies arising between the Ottawa Congress and the next succeeding one.

6. Finally, it should be noted that our proposals do not affect the number of members of the Commission (Article 2a of the Constitution) nor the procedure for nominating and electing new members (Article 4), nor that for determining the eligibility of retiring members for re-election (Article 3b).

D. HEPPELL
R.V. MELVILLE

PROPOSED AMENDMENT TO THE CONSTITUTION

It is proposed that the existing Article 3a be deleted and replaced by the following:

Article 3. Term of service of members of the Commission.

(a) Normal term. The normal term of service of a member of the Commission shall be reckoned as follows:

(i) All members shall be grouped into classes according to the date of their election or most recent re-election, and within each class all members shall have equal seniority.

(ii) A class shall consist of members elected or re-elected at a Congress, together with any members elected during the period since the close of the previous Congress.

(iii) The term of service of the most senior class shall terminate at the close of a Congress; but no member of that class shall be automatically eligible for re-election (Section b of this Article).

(iv) No further entries to a class shall be made after the close of a Congress, and a new class shall be opened on the election of the first member to be elected thereafter.

(v) The number of vacancies resulting from the expiry of the term of service of the most senior class shall equal the number of members who remained in the class until the date of its termination, but the Commission retains discretion to vary its numbers at any time (Article 2a) and may, on the recommendation of the Council, decide not to fill all vacancies arising at a given Congress.

(vi) If no Congress is held by the end of the third calendar year after the close of the preceding Congress, the term of service of the most senior class may, if the Council so decides, be terminated at the end of that calendar year, and members elected or re-elected thereafter shall form a new class as if there had been a Congress.

(vii) When no members remain in the most senior class, or when more than half the total number of members is in the most junior class, the term of service of the most senior class may be terminated prematurely, if the Council so decides, whereupon a new class shall be opened.

(viii) There shall be no more than five completed classes at any one time.

[The remaining provisions of this Article remain unchanged.]

INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE
DEFERMENT OF PROPOSAL TO INTRODUCE PROVISIONS TO REGULATE PARANOMENCLATURE. Z.N.(S.) 1973

By the Secretary, International Commission on Zoological Nomenclature

The purpose of this paper is to give some further explanation of the reasons for deferring publication of the results of the votes on Voting Papers (80)18, points 3 and 4, and (80)39 (see *Bull. zool. Nom.* vol. 38, pp. 47–48).

In nearly all the groups in which dual taxonomies are used, they are expressed by dual nomenclatures (e.g. ammonites and aptychi; nautiloids and rhyncholites; holothurians and holothurian spicules, to mention but a few). In other words, Article 24b(i) of the present (1964) Code is ignored. The aim of the Editorial Committee's proposals (*Bull. zool. Nom.* vol. 36, pp. 11–14) was to legalise this widespread and long-continued practice, in response to requests from workers in these fields.

Unfortunately, those proposals encountered determined opposition from workers in one group — the conodonts — who have adopted a different procedure. Whereas nearly all the work done on conodonts in the first 100 years since they were discovered was concerned with discrete elements, nowadays more attention is given to associations of elements known as apparatuses. The classification of elements as such cuts across the classification of apparatuses as such, so that a given genus of elements may be found in two, three or more genera of apparatuses. Nevertheless, conodont workers since 1966, and increasingly since 1972, have applied Article 24b(i) as though both elements and apparatuses could be dealt with in a single classification. It is now possible using statistical methods on large samples to associate together the elements that constituted a given apparatus, even if no specimen displaying that apparatus as a whole has been found. The oldest name among those of the constituent elements is then applied to that apparatus. At the species level, however, the specific name will only be applied to apparatuses that can be considered conspecific with the apparatus that contains the type specimen of the element with the oldest name. Closely similar elements that occur in apparatuses considered not to be conspecific with that species will be given different names. At the generic level, the oldest generic name applied to any of the elements will be applied to the apparatus unless the apparatus is considered not to be

congeneric with the one that represents the type species of the genus with the oldest name. In that case, some other generic name will be used.

A classic example of the way in which this method works in practice can be found in Bergström & Sweet, 1966, *Bull. amer. Paleont.* vol. 50, No. 229. This paper deals with the conodont fauna of a small part of the Ordovician System of the United States. Element species of a single element genus are distributed between two or even three apparatus genera. In some cases, a single binomen may mean both an element species (in a genus represented in two or three apparatus genera) and an apparatus species; in more numerous cases, a single generic name may be used to denote a number of element species (distributed in a number of apparatus genera) and an apparatus genus. It is impossible to tell by inspection which of two taxonomic meanings is intended by a particular citation of a name. A single nomenclature is made to serve the needs of two different, cross-cutting taxonomies in conodonts.

The task before the Commission is thus to find some way by which the procedure adopted by the conodont workers and that adopted for over 150 years by workers in other groups with parataxonomic problems can be covered by the Code. This will evidently be difficult and delicate, and may involve devising provisions that apply only to named groups of animals.

THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE
RESULT OF VOTE ON PROPOSALS FOR SUBSTANTIVE AMENDMENTS (FIFTH INSTALMENT). Z.N.(S.) 2342

By the Secretary, International Commission on Zoological Nomenclature

This report presents the result of the Commission's vote on the proposal that names published with the notation 'var.' or 'form' before 1961 are to be treated as having subspecific rank unless it is clear from the context of the work that the author used one of those terms to denote an infrasubspecific taxon. This proposal figured as Article 45g(i) of the Sixth Draft of the Third Edition of the Code (November 1977) and was published in *Bull. zool. Nom.* vol. 36, p. 217 as paragraph 19 of the Commission's report to the Section on Zoological Nomenclature at Helsinki. It was approved by the Special Session of the Commission at Stensoffa, by the General Meeting of the Commission at Helsinki, and by the Section on Zoological Nomenclature and the Division of Zoology at Helsinki.

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)30 for or against the proposal presented in the following form:

Code Article	Commission Report to Section on Zoological Nomenclature at Helsinki, 1979, Section B
45e(i)	19. That the use of either of the terms 'variety' or 'form' with a name of the species-group published before 1961 is to be interpreted as denoting subspecific rank unless it is clear from the context of the work in which the name was first published that the author was using the name to denote an infrasubspecific taxon. The status of names treated as subspecific by authors observing the mandatory provisions of Article 45e(i) of the Code concerning the interpretation of the terms 'variety' and 'form' would be maintained. The Code Article 45e(i) currently makes it mandatory for names published before 1961 with the terms 'variety' or 'form' to be treated as of subspecific rank. In some groups large numbers of names were used to characterize mere colour variants and their

introduction into nomenclature would greatly complicate homonymy without any benefit. The provision permits discretion in the case of such names.

The following background note was sent out with the voting paper.

V.P.(80)30 — APPENDIX

Background to the proposal

This proposal modifies Article 45e(i) adopted at Monaco, 1972, concerning the interpretation of the terms 'var.' and 'form'. The London (1961) Code said that the use of either of those terms before 1961 was not to be interpreted as an express statement of either subspecific or infrasubspecific rank. Many zoologists took this to mean that they could apply their judgment to a given use of either term in its context, and decide whether the author who had used the term intended it for a taxon of one rank or the other. However, the London Code also said, in Article 45d(i), that the rank of a taxon was to be interpreted as subspecific if, before 1961, the author did not clearly state its rank. The Monaco decision stated that the terms 'var.' and 'form', if used before 1961, were to be interpreted as denoting subspecific rank.

The proposal in the 6th Draft, Article 45g(i), was that 'Use of either of the terms "variety" or "form" before 1961 is to be interpreted nomenclaturally as denoting subspecific rank unless the author made it clear that he was using the name to denote an infrasubspecific category or a population within a subspecies'. No separate attention was drawn to this in the articles published in *Bull. zool. Nom.* vol. 34, part 3, or vol. 35, part 2. No comments were received from the zoological public.

The subject was very fully discussed by the special meeting at Stensoffa, which concluded that zoologists should have discretion to treat such names as having infrasubspecific rank where it was clear from the context that that had been the original author's intention. At the same time, the meeting resolved that such names published before 1961 and adopted before 1980 as the valid names of subspecies should continue to be available names in the species group.

It is a mere matter of historical fact that the term 'variety' has been used in many different ways. In some cases it denotes an individual variant, in others a seasonal form, in yet others an undoubted subspecies. However, in groups where polymorphism is widespread (e.g. Lepidoptera, Coleoptera, Bivalvia, Gastropoda) it has been extensively used at infrasubspecific level. To confer

automatic availability on all such names would lead to nomenclatural chaos.

The proposal was accepted by the Section on Zoological Nomenclature at Helsinki.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule for or against the proposal contained in paragraph B.19 of the Commission's report to the Section on Zoological Nomenclature at Helsinki. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Affirmative Votes — seventeen (17) received in the following order: Melville, Willink, Cogger, Hahn, Bernardi, Brinck, Ride, Tortonese, Corliss, Habe, Lehtinen, Alvarado, Welch, Heppell, Halvorsen, Nye, Bayer

Negative Votes — five (5): Holthuis, Mroczkowski, Starobogatov, Trjapitzin, Sabrosky

Vokes was on leave of absence. No votes were returned by Binder, Dupuis and Kraus.

The following comments were sent in by members of the Commission with their votes:

Starobogatov: 'The original text in the 6th Draft is clearer and does not lead to endless confusion as this text does. Many "infrapopulational" variants of old authors have now become good species in Mollusca and Insecta. The new text of the provision leads the specialist to establish new names for well-known species.'

Lehtinen: 'Article 45e(i) concerns one of the central problems of zoological nomenclature. It should be modified in a logically acceptable and at the same time, absolutely unequivocal form. The current form adopted at Monaco, seems to be unequivocal, but its principle certainly is not generally accepted. The leading principle of the London Code obviously was more sound, and the same is true for the proposal made at Helsinki, but their practical application is difficult and not unequivocal.

The proposal made at Helsinki, 1979, is clearly better than the two preceding forms of this article, but still its interpretation may be disputable. I prefer the proposed form of Article 45e(i) in relation to the present Code, but I should like to leave this article for further discussion and later improvement.

In my opinion, the bulk of obscure infrasubspecific names in many groups, published before 1961, have already been revised and treated in the best possible way. The status of all such names should be maintained as they are now, applying the valid Code. The

situation may be different in a number of groups, but it will never be the same in all animal groups. Therefore I suggest that the possibility should be discussed to accept from some date onwards only subspecific names that have originally been published in the category of species-group names, even in regard to all unrevised names published before 1961.

Polymorphic species with a few, morphologically distinct and discontinuous morphs is a type of infraspecific variation that belongs under Article 45e. The morphs clearly represent a category, the names of which are not available among the species-group names. However, the subspecies of some groups are or can be defined mainly according to presence or relative abundance of some morphs, and morphs in many groups have been repeatedly confused with subspecies or species. In my opinion, the Code needs some specified recommendations for treating of polymorphic species in general and geographically balanced cases separately. The presence of a nomenclaturally valid subspecific name simultaneously as an infrasubspecific name of another subspecies of the same species is highly confusing. This is possible, when a morph has originally been described as the oldest available name for a subspecies, although the same morph is present in populations of more than one subspecies.

The above mentioned instance clearly shows that there are cases of infrasubspecific variation which are not infrasubspecific, but represent a category hierarchically parallel to subspecies. An active statement of such cases is necessary in a revised Code.'

Sabrosky: 'Voting on this subject is subject to ruling by the Council on my ruling in the matter and your appeal (Sept. 15) [see below]. I have delayed this long in the hope that the result would be available. However, if the Council has ruled against me, but the result has not yet been communicated to me, then I should record a vote that can be counted. I would object that the "Background to the Proposal" is entirely one-sided and does not present arguments for the other side.'

THE PRESIDENT'S RULING

On 15 September 1980 I received a copy of a letter from the President to the Editorial Committee. In the first three paragraphs he restated the formal position established by the London and Monaco decisions on Article 45e(i) of the Code as it is stated in the 'Background to the Proposal' herein. He then continued:

'4. Is the present proposed wording a substantive change? Yes, unquestionably, in my opinion. Instead of "grandfathering" into availability all var. and form names proposed before 1961, it relegates some of them to infrasubspecific status and also introduces

a subjective element meaning that all the numerous var. and form names will have to be re-examined to see whether infrasubspecific rank was suggested — in whatever shades of grey or interpretation that may involve. Some will no doubt prove to be infrasubspecific. But that will not be the end of the matter: one must then seek to find out whether such a name has been treated before 1961 as having subspecific rank. What a time-waster!

'5. Has this substantive change been duly published, one year in advance of a vote, for comment by zoologists? The Editorial Committee published substantive proposals for general debate in *Bull. zool. Nom.* for November 1977, October 1978, July 1979 and August 1979. Nowhere in these announcements is there any mention of the var. and form problem.

'It is true that a revision of this provision appeared in Draft 6, and Ride and Melville maintain that this satisfied the requirement for publication at least one year before voting. In my view this is not consistent with our separate publication of the major issues in the four parts of the *Bulletin* noted above, in which the Secretary, for the Editorial Committee, pointed out that proposals of a major character "must be opened for general debate before the Commission can vote on them". Obviously, such major proposals for substantive changes needed to be highlighted to focus discussion on them. This has never been done with the var. and form problem, and it seems to me that the Editorial Committee can now be charged with gross negligence or oversight, or at worst for trying to slip something through by not making zoologists aware of the fact that something has been changed. Protests are certain to develop, just as Townes has long regarded — and with some justice, I believe — some Commission actions as illegal, and as I have so regarded Commission actions on the yucca moths and on the family name ATTACIDAE, neither of which I recognise as legitimate.

'6. Am I biassed because I am opposed to the present var. and form provision? No doubt I am, but I have tried to be as objective as possible in considering the position of the Commission vis-à-vis zoologists and the image of the Commission.

'7. Can one now consider this a major change, after it was accepted at Stensoffa and Helsinki? In my opinion, any member at any stage in the proceedings can challenge a procedural error or inadequacy, especially one as serious as a failure to publish a major change of comment. Certainly this is true as long as the Code has not been finally adopted (it is still subject to a vote by the full Commission). Even after adoption, a charge of failure to observe proper procedure would be cause for challenge and demand for reconsideration, which could result in (1) reversal, or (2) affirmation of what had been adopted, or perhaps (3) adoption of some compromise.

'8. Conclusion: as President of the Commission, acting under Bylaw 16, I rule that the proposed var. and form change is a major change that was not properly published as such and therefore cannot be included in the new Code, and that the Monaco provision, with such editorial work as may be appropriate, is all that we can legitimately use at this time.'

The President went on to explain that any member of the Commission could appeal to the Council against his ruling, under Bylaw 25. I therefore did so on 15 September 1980, explaining that I agreed with the President's interpretation of what the London Code said and of the Monaco amendment. I went on:

'I disagree with the President, first, on the procedural issue. We never formally bound ourselves to publish all proposals for substantive changes in the *Bulletin* and in the *Bulletin* alone. The point at issue was published in Draft 6, much more than a year before the voting paper — V.P.(80)30 — was issued. I consider that that voting paper was legitimately issued under the authority of the decision taken by the Section on Zoological Nomenclature at Helsinki as ratified by the Division of Zoology. A challenge to the correctness of our procedure therefore amounts to a challenge to the Helsinki ruling by the Section and Division, by which alone we are authorised to continue working on the Third Edition of the Code and take it to publication. Such a challenge can obviously only be dealt with when those bodies next meet, at Ottawa in 1982.' I accordingly urged the Council to reject the President's ruling.

In a later letter received on 26 September 1980, the President indicated that he would abstain from voting on the issue. Professor Dr Holthuis had already indicated that he supported the President's position. The remaining members of Council at that time (Heppell and Brinck) supported the Secretary's position. The President's ruling was accordingly rejected.

DECLARATION OF RESULT OF VOTE

I hereby declare that the votes cast on V.P.(80)30 and in the subsequent Council vote were cast as set out above and that the proposal contained in that voting paper will be incorporated into the Code by the Commission, in accordance with the authority given to it by the Division of Zoology of IUBS at Helsinki, in words to be prepared by the Editorial Committee.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
3 March 1981

OPINION 1182
TETHYIDAE IN MOLLUSCA, PORIFERA AND TUNICATA: REMOVAL OF THE HOMONYMY

RULING.-(1) Under the plenary powers:

(a) it is hereby ruled that the stem of the generic name *Tethys* Linnaeus, 1767, is TETHYÐ ;

(b) The generic name *Tethyum* Gunnerus, 1765, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Tethya* Lamarck, [1814] (gender: feminine), type species, by subsequent designation by H. Milne Edwards, 1849, *Alcyonium lyncurium* Linnaeus, 1767 (Name Number 2123);

(b) *Pyura* Molina, 1782 (gender: feminine), type species, by monotypy, *Pyura chilensis* Molina, 1782 (Name Number 2124).

(3). The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *aurantium* Pallas, 1766, as published in the binomen *Alcyonium aurantium* (the valid name, at the time of this ruling, for the type species of *Tethya* Lamarck, [1814]) (Name Number 2747);

(b) *chilensis, Pyura*, Molina, 1782, as published in the binomen *Pyura chilensis* (specific name of type species of *Pyura* Molina, 1782) (Name Number 2748).

(4). The following names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) TETHYDIDAE (correction, through the ruling under the plenary powers in (1)(a) above of TETHYIDAE) Rafinesque, 1815 (as "Tethydia") (type genus *Tethys* Linnaeus, 1767) (Name Number 511);

(b) APLYSIIDAE Swainson, 1840 (as "Aplysianae") (type genus *Aplysia* Linnaeus, 1767) (Name Number 512);

(c) TETHYIDAE J.E. Gray, 1867 (as "Tethyadae") (type genus *Tethya* Lamarck, 1814) (Name

Number 513);

(d) PYURIDAE Hartmeyer, 1908 (type genus *Pyura* Molina, 1782) (Name Number 514).

(5). The generic name *Tethyum* Gunnerus, 1765, as suppressed under the plenary powers in (1)(b) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 2117.

(6) The following names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names with the Name Numbers specified:

(a) TETHYIDAE Rafinesque, 1815 (as "Tethydia"), an incorrect spelling in consequence of the ruling given under the plenary powers in (1)(a) above (Name Number 484);

(b) TETHYIDAE Huntsman, 1912 (a junior homonym of TETHYIDAE J.E. Gray, 1867) (Name Number 485).

HISTORY OF THE CASE Z.N.(S.) 1780

The origin of the present case lies in a request from Mr Joshua L. Baily, Jr, received on 17 October 1966, for the completion of the ruling in Opinion 200 on the generic names *Tethys* and *Aplysia* by adding the corresponding family names (TETHYIDAE and APLYSIIDAE) to the Official List. It was not then possible to agree on a final text, but this was done in 1975. Mr Baily's application was sent to the printer on 16 May and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 144–145. Public notice of the possible use of the plenary powers in the case was sent to the statutory serials and to three malacological serials.

Dr L.B. Holthuis wrote on 2 October 1975 to draw attention to the existence of the homonymous family name TETHYIDAE in Porifera (type genus *Tethya* Lamarck, [1814]). Dr W.O. Cernohorsky wrote on 25 November 1975 giving the correct authors and dates for the two molluscan family names involved. The application was supported by Dr Allyn G. Smith (*California Academy of Sciences, San Francisco*). Dr Jon-Arne Sneli (*Biologisk Stasjon, Trondheim, Norway*) sent a note received on 21 January 1976 drawing attention to another homonymous use of the family name TETHYIDAE in Tunicata (Ascidiacea).

These comments entailed much bibliographic work and correspondence with those directly involved as well as with other specialists to establish the original references for the various generic, specific and family-group names involved, and for the fixations of type species for the genera in question. These

consultations led to the publication of a revised application by the Secretary on 28 February 1978 in *Bull. zool. Nom.* vol. 34, pp. 247–251. New notices of the possible use of the plenary powers in the case were sent to the statutory journals, to seven general serials and to three malacological serials. Dr Holthuis wrote to correct the type-species designation for *Tethya* Lamarck and the status of *Pyura chilensis* Molina. His comment was published in *Bull. zool. Nom.* vol. 35, p.196, with the Secretary's reply. No other comments were received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)20 for or against the proposals set out in *Bull. zool. Nom.* vol. 34, pp. 247–251 as modified in vol. 35, p. 196. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Affirmative Votes — twenty-two (22) received in the following order: Melville, Holthuis, Mroczkowski, Willink, Brinck, Starobogatov, Trjapitzin, Lehtinen, Hahn, Tortonese, Corliss, Dupuis, Habe, Ride, Welch, Alvarado, Cogger, Sabrosky, Heppell, Bayer, Halvorsen, Nye

Negative Votes — none (0)

Vokes was on leave of absence. No voting papers were returned by Bernardi, Binder and Kraus.

Dr Sabrosky asked whether the family name TETHYMELIBIDAE Bergh, 1890, ought not to have been placed on the Official Index, as requested by Mr Baily in his original application. This was admittedly overlooked by the Secretary in his revised application and the point has not been voted on by the Commission. The name is, however, plainly unavailable, being based, not on the stem of a generic name but on a fusion of the stems of two generic names. Dr Sabrosky also asked whether "Tethydia" Rafinesque, 1815, was based on *Tethys* Linnaeus, 1758 (the name for a genus of tectibranch gastropods suppressed in Opinion 200) or on *Tethys* Linnaeus, 1767 (the name for a genus of nudibranch gastropods). The name "Tethydia" is accompanied by the description "pas de tentacules" and by a number of generic names. In addition to *Tethys* L. and '*Acera* Cuv.' there are four new nomina nuda: *Agenor*, *Armina*, *Nereus* and *Peribea*. All these are accepted as nudibranch names by Russell, H.D., 1971, *Index Nudibranchs*, Delaware Mus. nat. Hist., iv + 141 pp. This leaves no doubt that Rafinesque intended to name a family of nudibranchs based on *Tethys* Linnaeus, 1767, and that the present ruling is not misdirected on that score.

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

APLYSIIDAE Swainson, 1840, *Treatise Malacology*, pp. 247, 248, 251

aurantium, Alcyonium, Pallas, 1766, *Elenchus Zoophytorum*, p. 357

chilensis, Pyura, Molina, 1782, *Sag. Stor. nat. Chili*, p. 348

Pyura Molina, 1782, *Sag. Stor. nat. Chili*, p. 196

PYURIDAE Hartmeyer, 1908, *Zool. Annalen*, vol. 3, pp. 7, 15, 26

Tethya Lamarck, [1814], *Mém. Mus. Hist. nat. Paris*, vol. 1 (1), p. 69

TETHYDIDAE Rafinesque, 1815, *Analyse Nature*, p. 141

TETHYIDAE Rafinesque, 1815, *ibid.*

TETHYIDAE J.E. Gray, 1867, *Proc. zool. Soc. London* for 1867, p. 540

TETHYIDAE Huntsman, 1912, *Trans. Canad. Inst.* No. 21, vol. 9 (2), p. 133

Tethyum Gunnerus, 1765, *K. norske Vidensk. Selskab. Skr.* vol. 3, p. 102.

The following is the original reference to a subsequent designation of a type species accepted in the present ruling: of *Alcyonium lyncurium* Linnaeus, 1767, as type species of *Tethya* Lamarck, [1814] by H. Milne Edwards, *in* Cuvier, *Règne Animal*, ed. 4 (Disciples' Edition), vol. 20 (1836–1849), pl. 95.

CERTIFICATE

I hereby certify that the votes cast on Voting Paper (80)20 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1182.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
16 December 1980

OPINION 1183
TEREBRATULA LINEATA YOUNG & BIRD, 1828, AND *RHYNCHONELLA SUBCONCINNA* DAVIDSON, 1852 (BRACHIOPODA): DESIGNATION OF NEOTYPES

RULING.-(1) Under the plenary powers it is hereby ruled that the following names are to be applied in accordance with the neotypes specified:

(a) *Terebratula lineata* Young & Bird, 1828 by specimen number BB 14882 in the Palaeontology Department of the British Museum (Natural History), London;

(b) *Rhynchonella subconcinna* Davidson, 1852 by specimen number B 33239 in the Palaeontology Department of the British Museum (Natural History), London.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *lineata, Terebratula*, Young & Bird, 1828, as published in the binomen *Terebratula lineata*, and as interpreted by reference to the neotype designated under the plenary powers in (1)(a) above (Name Number 2749);

(b) *subconcinna* Davidson, 1852, as published in the binomen *Rhynchonella subconcinna*, and as interpreted by reference to the neotype designated under the plenary powers in (1)(b) above (Name Number 2750).

HISTORY OF THE CASES Z.N.(S.)1217, 1218

Applications for the designation of neotypes by the use of the plenary powers for the two nominal species *Terebratula lineata* Young & Bird, 1828, and *Rhynchonella subconcinna* Davidson, 1852, were first received from Dr D.V. Ager (then of *Imperial College of Science, London S.W.7*) on 25 April 1957. They were sent to the printer on 12 June 1957 and published on 26 August 1957 in *Bull. zool. Nom.* vol. 13, pp. 251–253, 254–256 respectively. Public notice of the possible use of the plenary powers in the case was given in three palaeontological serials.

The application was supported by R.V. Melville (then of *Geological Survey & Museum, London S.W.7*). Professor J. Chester Bradley objected to the use of the plenary powers in the case; he thought that it should be dealt with under the 'notification-

and-challenge' procedure proposed at the Copenhagen (1953) Congress (see *Copenhagen Decisions on Zoological Nomenclature*, paragraph 39, p. 30) but never formally adopted in the Code (*ibid.*, paragraph 196, p. 103). Dr Ager, supported by Mr Melville, maintained his original request, which aimed at stabilising these disputed names in the sense that he had given them in a recent monograph. Furthermore, the species are of stratigraphical importance. There can be no doubt that the Commission was, at that time, entitled to use its plenary powers in the manner requested. The fact that the use of those powers is not necessary under the 1961 Code was not then relevant.

DECISION OF THE COMMISSION

On 17 March 1958 the members of the Commission were invited to vote under the Three-Month Rule on Voting Papers (1958)7 and 8 on the proposals set out in *Bull. zool. Nom.* vol. 13, pp. 253, 256. At the close of the voting period on 17 June 1958, the state of the voting was as follows:

Affirmative Votes — sixteen (16) received in the following order: Holthuis, Hering, Vokes, Prantl, Hankó, Dymond, Riley, Bonnet, Bodenheimer, Boschma, Jaczewski, do Amaral, Cabrera, Hemming, Kühnelt, Tortonese

Negative Votes — seven (7) received in the following order: Lemche, Mayr, Key, Mertens, Sylvester-Bradley, J.C. Bradley, Stoll

The votes were cast identically on both voting papers.

The following comments were returned by members of the Commission with their votes on V.P.(58)7:

Lemche: 'The problem is not a nomenclatural one. The applicant should not be able to make the Commission responsible for the taxonomic view that *lineata* = *bidens* = *triplicata*, which is the sole purpose of this application.'

Mayr: 'Even before reading Commissioner Bradley's comments I had marked in my copy of the Bulletin that this is one of the superfluous neotype designations that we had tried to discourage at Copenhagen. If we set this precedent we may get flooded by applications. Regardless of whether the majority comes out "for" or "against", the reasons for the "against" votes should be recorded in the Opinion in detail.'

Key: 'I see no occasion to go beyond the notification and challenge procedure. The applicant admits that the original figure and description are enough to define the species and he supplies no evidence of rival interpretations of the name. I would be prepared to vote only for the addition of *lineata* to the Official List (without reference to the neotype).'

J.C. Bradley: 'The plenary powers are to suspend the rules. I object to misusing them by invoking them to hasten the application of a rule in connection with which a satisfactory procedure is already provided.'

The following comments were returned with V.P.(58)8:

Lemche: 'The problem is not a nomenclatural one. The applicant should not be able to make the Commission responsible for the taxonomic view that *subconcinna* = *fodinalis*, which is the sole purpose of this application.'

Mayr: 'As correctly stated by Commissioner Bradley, since this name has enjoyed uninterrupted usage, is not now challenged, and is unequivocally represented by the figure of the holotype, the application for a neotype does not meet the requirements adopted at Copenhagen. Mere loss of the holotype is not enough. The applicant has provided no real evidence of confusion.'

Key: 'The applicant has given no reasons why the notification and challenge procedure is inadequate to deal with the situation he describes.'

ORIGINAL REFERENCES

The following are the original references for names placed on an Official List by the ruling given in the present Opinion:

lineata, Terebratula, Young & Bird, 1828, *Geological survey of the Yorkshire coast*, 2nd edit., p. 232, pl. 7, fig. 10

subconcinna, Rhynchonella, Davidson, 1852, Monograph brit. foss. Brachiopoda (*Palaeontogr. Soc.*), vol. 1(3), p. 10, pl. 1, figs. 5a-c.

The following are the original references to neotype designations accepted in the present Opinion: Ager, 1956, Monograph brit. Liassic Rhynchonellidae (*Palaeontogr. Soc.*) (1), pp. 40–43, pl. 3, figs. 6a–c (for *Terebratula lineata*), p. 10, pl. 1, figs. 5a-c (for *Rhynchonella subconcinna*).

CERTIFICATE

I hereby certify that the votes cast on voting papers (58)7 and 8 were cast as set out above, that the proposals contained in those voting papers have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1183.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
31 December 1980

POSTSCRIPT BY THE SECRETARY

Before writing the above Opinion, I asked Professor Ager (now of *University College, Swansea, U.K.*) whether usage of the names involved was the same today as when his application was submitted over 20 years ago. He assured me that it was. Since his application for the use of the plenary powers had been approved by the necessary two-thirds majority, I drafted the Opinion accordingly.

R.V.M.

OPINION 1184
DITYLENCHUS FILIPJEV, 1936, GIVEN NOMENCLATURAL PRECEDENCE OVER *CHITINOTYLENCHUS* MICOLETZKY, 1922 (NEMATODA)

RULING.-(1) Under the plenary powers it is hereby ruled that the generic name *Ditylenchus* Filipjev, 1936, is to be given nomenclatural precedence over the generic name *Chitinotylenchus* Micoletzky, 1922, whenever the two names are considered synonyms.

(2) The generic name *Ditylenchus* Filipjev, 1936 (gender: masculine), type species, by original designation, *Anguillula dipsaci* Kuhn, 1857, is hereby placed on the Official List of Generic Names with the Name Number 2125 and with an endorsement that it is to be given nomenclatural precedence over *Chitinotylenchus* Micoletzky, 1922, whenever the two names are regarded as synonyms.

(3) The generic name *Chitinotylenchus* Micoletzky, 1922 (gender: masculine), type species, by subsequent designation by Filipjev, 1936, *Chitinotylenchus paragracilis* Micoletzky, 1922, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2126, and with an endorsement that it is not to be given priority over *Ditylenchus* Filipjev, 1936, whenever the two names are regarded as synonyms.

(4) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *dipsaci* Kuhn, 1857, as published in the binomen *Anguillula dipsaci* (specific name of type species of *Ditylenchus* Filipjev, 1936) (Name Number 2751);

(b) *paragracilis* Micoletzky, 1922, as published in the binomen *Chitinotylenchus paragracilis* (specific name of type species of *Chitinotylenchus* Micoletzky, 1922) (Name Number 2752).

HISTORY OF THE CASE Z.N.(S.)1955

The report on which the present Opinion is based was prepared by the Secretary and published on 31 March 1977 in *Bull. zool. Nom.* vol. 33, pp. 241–244. Notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to seven general and one nematological journal. No comment was received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule, in Voting Paper (80)21 in Part 1 for or against the use of the plenary powers in the case, and in Part 2 to use those powers either to reaffirm the decision to suppress *Chitinotylenchus* Micoletzky, 1922, taken in Voting Paper (75)7, or to give *Ditylenchus* Filipjev, 1936, nomenclatural precedence over *Chitinotylenchus*. At the close of the voting period on 5 December 1980, the state of the voting was as follows:

Part 1

Affirmative Votes — twenty-one (21) received in the following order: Melville, Holthuis, Mrockzowski, Willink, Starobogatov, Trjapitzin, Lehtinen, Hahn, Brinck, Corliss, Dupuis, Habe, Ride, Welch, Alvarado, Cogger, Sabrosky, Heppell, Bayer, Halvorsen, Nye

Negative Votes — none (0)

Part 2

Alternative A

Affirmative Votes — four (4): Melville, Lehtinen, Ride, Alvarado

Alternative B

Affirmative Votes — seventeen (17) received in the following order: Holthuis, Mroczkowski, Willink, Starobogatov, Trjapitzin, Hahn, Habe, Brinck, Corliss, Dupuis, Welch, Cogger, Sabrosky, Heppell, Bayer, Halvorsen, Nye

Tortonese abstained from voting. Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

Professor Tortonese observed: 'From their statements, the different specialists do not agree about the separation of the genera *Ditylenchus* and *Chitinotylenchus*. We cannot solve the nomenclatural problem if the taxonomic problem remains unsolved. I therefore agree with Professor Andrassy's opinion (*Bull.* vol. 33, p. 243): I do not consider that *Ditylenchus* is threatened by a name that may be a synonym but on the value of which we are not sure.'

Dr Ride said: 'If taxonomists decide that *Chitinotylenchus* really merits taxonomic separation from *Ditylenchus*, let them start afresh with good type material.'

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the ruling given in the present Opinion:

Chitinotylenchus Micoletzky, 1922, *Arch. Naturges.*, vol. A 87, pp. 546, 575

dipsaci, Anguillula, Kuhn, 1857, *Z. wiss. Zool.*, vol. 9, pp. 129–137

Ditylenchus Filipjev, 1936, *Proc. helminthol. Soc. Washington*, vol. 3, pp. 81–82

paragracilis, Chitinotylenchus, Micoletzky, 1922, *Arch. Naturges.*, vol. A 87, pp. 547, 575.

The following is the original reference to a type-species designation accepted in the ruling given in the present Opinion: of *Chitinotylenchus paragracilis* as type species of *Chitinotylenchus* by subsequent designation:

Filipjev, 1936, *Proc. helminthol. Soc. Washington*, vol. 3, p. 81.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)21 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1184.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
14 January 1981

OPINION 1185
SIMROTHIELLA PILSBRY, 1898 (MOLLUSCA, SOLENOGASTRES): DESIGNATION OF A TYPE SPECIES

RULING.-(1) Under the plenary powers, all designations of type species hitherto made for the nominal genus *Simrothiella* Pilsbry, 1898, are hereby set aside and *Solenopus margaritaceus* Koren & Danielssen, 1877 is designated as type species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Dorymenia* Heath, 1911 (gender: feminine), type species, by monotypy, *Dorymenia acuta* Heath, 1911 (Name Number 2127);

(b) *Simrothiella* Pilsbry, 1898 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Solenopus margaritaceus* Koren & Danielssen, 1877 (Name Number 2128).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *acuta* Heath, 1911, as published in the binomen *Dorymenia acuta* (specific name of type species of *Dorymenia* Heath, 1911) (Name Number 2753);

(b) *margaritaceus* Koren & Danielssen, 1877, as published in the binomen *Solenopus margaritaceus* (specific name of type species of *Simrothiella* Pilsbry, 1898) (Name Number 2754);

(c) *sarsii* Koren & Danielssen, 1877, as published in the binomen *Solenopus sarsii* (Name Number 2755).

HISTORY OF THE CASE Z.N.(S.)2083

An application for the designation of a type species for *Simrothiella* Pilsbry, 1898, was first received from Dr L. von Salvini-Plawen (*University of Vienna*) through Dr L.B. Holthuis on 22 July 1974. It was sent to the printer on 19 November 1974 and published on 22 September 1975 in *Bull. zool. Nom.* vol. 32, pp. 156–157. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to five general and three malacological serials. The application was supported by Mr D. Heppell except for the

proposed amendment of *sarsii* to *sarsi* (paragraph (3)(c) and (4) of the applicant's proposals). Mr Heppell pointed out that *Solenopus sarsii* was a correct original spelling; the fact that it was indeed the original spelling has been verified.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)22 for or against the proposals published in *Bull. zool. Nom.* vol. 32, pp. 156–157. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Affirmative Votes — seventeen (17) received in the following order: Melville, Mroczkowski, Willink, Starobogatov, Trjapitzin,Hahn, Brinck, Tortonese, Corliss, Habe, Ride, Welch, Alvarado, Heppell, Bayer, Halvorsen, Nye

Negative Votes — five (5): Holthuis, Lehtinen, Dupuis, Cogger, Sabrosky

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

The following comments were sent in by members of the Commission with their voting papers:

Holthuis: 'It seems that these are little-known species of no interest in applied science. A strict application of the Code would not cause much confusion, if any (at least, it does not appear from the application that it would). Heppell's comment is perfectly correct.'

Lehtinen: 'The arguments presented in favour of a proposed change of a valid original type designation are not sufficient. The Law of Priority should be applied in this case.'

Cogger: 'No evidence is presented in support of the contention that the proposed action is needed to "...avoid further confusion, which would involve the renaming of the nineteen *Dorymenia* species and to correspond with the general acceptance and usage of over fifty years...". A desire to maintain existing usage should not in itself be an adequate reason to overturn the provisions of the Code.'

Holthuis, Starobogatov, Trjapitzin, Hahn and Welch supported, and Mroczkowski, Brinck, Tortonese, Alvarado and Halvorsen opposed Mr Heppell's comment which favoured the original spelling, *Solenopsus sarsii*. I have verified that that is the only original spelling of the name; and there can be no doubt that *sarsius* is an admissible latinisation of Sars.

ORIGINAL REFERENCES

acuta, Dorymenia, Heath, 1911, *Mem. Mus. comp. Zool. Harvard*, vol. 45, p. 95

Dorymenia Heath, 1911, *Mem. Mus. comp. Zool. Harvard*, vol. 45, p. 46

margaritaceus, Solenopus, Koren & Danielssen, 1877, *Arch. Math. Naturv.*, vol. 2, p. 128

sarsii, Solenopus, Koren & Danielssen, 1877, *Arch. Math. Naturv.*, vol. 2, p. 128

Simrothiella Pilsbry, 1898, in Tryon, G.W., *Manual of Conchology*, vol. 17, p. 296.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)22 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1185.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
19 January 1981

OPINION 1186
TANYSTROPHEUS H. VON MEYER, [1852] (REPTILIA) CONSERVED

RULING.-(1) Under the plenary powers, the generic name *Macroscelosaurus* H. von Meyer, [1852], is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Tanystropheus* H. von Meyer, [1852] (gender: masculine), type species, by monotypy, *Tanystropheus conspicuus* H. von Meyer, [1852], is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2129.

(3) The specific name *conspicuus* H. von Meyer, [1852], as published in the binomen *Tanystropheus conspicuus* (specific name of type species of *Tanystropheus* H. von Meyer, [1852], is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2756.

(4) The generic name *Macroscelosaurus* H. von Meyer, [1852], as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 2118.

HISTORY OF THE CASE Z.N.(S.)2084

An application for the suppression of the generic name *Macroscelosaurus* H. von Meyer, [1852], was first received from Dr Rupert Wild (*Staatliches Museum für Naturkunde, Stuttgart, BRD*) on 9 July 1974. It was sent to the printer on 19 November 1974 and published on 27 June 1975 in *Bull. zool. Nom.* vol. 32, pp. 124–126. Notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to two herpetological serials. As a result of criticisms, a revised paper was published in vol. 33, pp. 124–126. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to ten general serials and two herpetological serials. The application was supported by Dr G.E. Gow (*University of Witwatersrand, RSA*). No adverse comment was received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980) 23 for or against the proposals set out in *Bull. zool. Nom.* vol. 33, p. 125. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Affirmative Votes — nineteen (19), received in the following order: Melville, Mroczkowski, Willink, Brinck, Starobogatov, Trjapitzin, Lehtinen, Hahn, Tortonese, Corliss, Habe, Ride, Welch, Alvarado, Sabrosky, Heppell, Halvorsen, Bayer, Nye

Negative Votes — Holthuis, Cogger

Dupuis abstained from voting. Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

The following comments were returned by members of the Commission with their voting papers:

Holthuis: 'Article 24a nowhere says that the two synonyms have to be considered valid by their author(s). Under this Article, *Macroscelosaurus* must be considered a junior objective synonym of *Tanystropheus*.'

Dupuis: 'Je m'abstiens, car je soupçonne qu'une recherche historique sérieuse concernant le nom *Macroscelosaurus* n'a été poursuivie ni par le demandeur (R. Wild) ni par les auteurs dont il cite une supposition en passant dans un Traité (Peyer in Kuhn-Schnyder) alors qu'un nom aussi long et compliqué ne peut pas être une pure invention de H. von Meyer.'

Cogger: 'The single treatment of *Macroscelosaurus* as an available name "with its original date and authorship" (Article 11d) is apparently that of Kuhn, 1934, but the applicant is unable to verify that Kuhn's attribution is correct, or that Münster's *Macroscelosaurus* was ever published prior to its citation in synonymy by H. von Meyer, 1852. Consequently *Macroscelosaurus* Münster, 1834 cannot be shown to have been published and is not available under either of the provisions of Article 11d. Further, the name *Macroscelosaurus* H. von Meyer, [1852] is not available under Article 11d, and its suppression using the plenary powers would not only seem to be unnecessary, but would leave the basic problem unresolved if any worker was to locate the "missing" reterence to *Macroscelosaurus* Münster, 1834, which, having been used as an available name by Kuhn, would presumably become available as a senior synonym of *Tanystropheus* H. von Meyer, [1852]. Although I oppose only parts 5a and 5d of the application, it seems appropriate to vote against the application as a whole.'

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

conspicuus, Tanystropheus, H. von Meyer, [1852], *Zur Fauna der Vorwelt* (2), p. 42

Macroscelosaurus H. von Meyer, [1852], *Zur Fauna der Vorwelt* (2), p. 42

Tanystropheus H. von Meyer, [1852], *Zur Fauna der Vorwelt* (2), p. 42.

CERTIFICATE

I hereby certify that the votes cast on voting paper (80)23 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1186.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
21 January 1981

OPINION 1187
OPHIOLEPIS MÜLLER & TROSCHEL, 1840 (OPHIUROIDEA): DESIGNATION OF TYPE SPECIES

RULING.-(1) Under the plenary powers, all designations hitherto made for the nominal genus *Ophiolepis* Müller & Troschel, 1840, are hereby set aside and *Ophiolepis superba* H.L. Clark, 1915, is hereby designated to be the type species of that genus.

(2) The generic name *Ophiolepis* Müller & Troschel, 1840 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Ophiolepis superba* H.L. Clark, 1915, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2130.

(3) The specific name *superba* H.L. Clark, 1915, as published in the binomen *Ophiolepis superba* (specific name of type species of *Ophiolepis* Müller & Troschel, 1840) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2757.

HISTORY OF THE CASE Z.N.(S.)2097

The present case was prepared by Miss Ailsa M. Clark (*British Museum (Natural History), London*) and the Secretary as a by-product of the case of the generic name *Ophiura* (Opinion 1152, *Bull. zool. Nom.* vol. 37, pp. 78–80). It was sent to the printer on 14 October 1975 and published on 30 January 1976 in *Bull. zool. Nom.* vol. 32, pp. 268–269. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to five other serials. No comment was received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule in Voting Paper (80)24 for or against the proposals set out in *Bull. zool. Nom.* vol. 32, pp. 268–269. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Affirmative Votes — twenty-one (21), received in the following order: Melville, Holthuis, Mroczkowski, Willink, Starobogatov, Trjapitzin, Lehtinen, Hahn, Brinck, Tortonese, Corliss, Dupuis, Habe, Ride, Welch, Alvarado, Sabrosky, Heppell, Bayer, Halvorsen, Nye

Negative Vote — Cogger

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

The following comments were returned by members of the Commission with their voting papers:

Ride: 'Although I vote for the proposal, I must ask the Secretary to consider whether the Commission should also be required to make the name *O. superba* Clark an available name by the use of the plenary powers before placing it on the Official List. As I interpret the information given by the applicants, they are asking the Commission to accept *O. superba* as a replacement name for a homonym. But although H.L. Clark assumes it to be so, "*O. annulosa* Blainville" is not an available name. It is a misused name. The questions not covered by the Code are:

'(i) Whether Müller & Troschel established the new name *Ophiolepis annulosa* by using it in accordance with the wrong usage of a previous author (Blainville) when they established a new nominal genus for which they did not designate a type species from among several originally included species. I do not think Article 70b(i) covers this eventuality.

'(ii) I do not consider that Article 70b(i) allows *O. annulosa* to be made available from Lyman since, although he explicitly refers to the "wrong usage" of Blainville, and Lyman is designating a type species, it is not for a new nominal genus as required by the Article. It is a type by subsequent designation after the establishment of the nominal genus (Article 67b).

'Unless *O. annulosa* Blainville is an available name, *O. superba* Clark is not a replacement name and is not available.'

Cogger: 'Although Blainville clearly misidentified the material before him as *Ophiura annulosa* Lamarck, 1816, the applicants have correctly pointed out that Blainville had not established a new species. Consequently, *Ophiolepis superba* nom. nov. of H.L. Clark, 1915, is not a new name for a homonym but, under Article 72d, is simply a new name for Lamarck's *annulosa* and has the same type specimen. Thus Clark's *Ophiolepis superba* is a junior objective synonym of *Ophiura annulosa* Lamarck, and whether the nominal type species of *Ophiolepis* is *O. annulosa* of de Blainville (= *O. annulosa* Lamarck) or *O. superba* H.L. Clark (= *O. annulosa* Lamarck) seems irrelevant. The type species is still *O. annulosa* Lamarck and this is true now and would continue to be true whether or not the

application is approved. It is implied (though not stated) that the purpose of the action sought is to conserve the name *superba* for the taxon represented by Blainville's specimens. If so, an entirely different strategy involving use of the plenary powers to set aside the provisions of Article 72d would seem to be necessary.'

Reply by *Melville*: Careful reading of our application will show that we hold that all those who treated *O. annulosa* Blainville as a homonym of *O. annulosa* Lamarck were wrong. We state clearly that the case concerns a misidentified species. Under Article 49, the specific name wrongly used in such a misidentification cannot be used for the species in question under any circumstances. H.L. Clark was in fact not renaming a homonym, but giving a name to a species that had none of its own; we should have stated clearly that, in our view, he should have said '*Ophiolepis superba* sp. nov.', instead of 'nom. nov.' Both the comments cited above show a misunderstanding of what H.L. Clark actually did, and of Article 49.

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the ruling given in the present Opinion:

Ophiolepis Müller & Troschel, 1840, *Arch. Naturges.*, Jahrg. 6, vol. 1, p.328

superba, Ophiolepis, H.L. Clark, 1915, *Spolia Zeylanica*, vol. 10, p. 89.

CERTIFICATE

I hereby certify that the votes cast on Voting Paper (80)24 were cast as set out above, that the proposition contained in that voting paper has been duly adopted under the plenary powers, and the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1187.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
27 January 1980

TEIIDAE GRAY, 1827 (REPTILIA, SAURIA): PROPOSED CONSERVATION. Z.N.(S.)1920

By William Presch (*Department of Biological Sciences, California State University, Fullerton, California 92634, U.S.A.*)

Thirty-seven genera of lizards restricted to the New World have been placed in the family TEIIDAE since the work of Boulenger, 1885. The name TEIIDAE was proposed by Gray in 1827, but two years earlier Gray had proposed the family TUPINAMBIDAE. Under Article 23d of the International Code of Zoological Nomenclature, TUPINAMBIDAE has priority over TEIIDAE which is in general current use. The object of the present application is to request the International Commission on Zoological Nomenclature to use its plenary powers to grant the name TEIIDAE Gray, 1827, precedence over the name TUPINAMBIDAE Gray, 1825.

2. TUPINAMBIDAE Gray, 1825, p. 199, was established for the nominal genus *Tupinambis* Daudin, 1802, p. 5, type species *Lacerta teguixin* Linnaeus, 1758, p. 208, by monotypy.

3. TEIIDAE Gray, 1827, p. 204, was established for the nominal genus *Teius* Merrem, 1820, pp. 13, 60, type species *Lacerta teyou* Daudin, 1802, p. 195, by monotypy.

4. Between 1758 and 1884 lizards currently placed in the TEIIDAE were distributed under 27 family-group names. Boulenger, 1884, p. 335, proposed the currently accepted arrangement of families and then Boulenger, 1885, p. 330, published a list of genera included in the TEIIDAE. Since then the name TEIIDAE has been in general current use, for example by Boulenger, 1884; Camp, 1923; Cope, 1892, 1900; Duellman, 1979; Estes, 1969; Etheridge, 1967; Gugg, 1938; MacLean, 1974; Northcutt, 1978; Presch, 1980; Tihen, 1964; Uzzell, 1973; Vanzolini & Ramos, 1977; Wever, 1978.

5. To the best of my knowledge the name TUPINAMBIDAE has not been used since it was made available, whereas the name TEIIDAE has been in continuous use for over 50 years. In the interests of stability I request the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to rule that TEIIDAE Gray, 1827 (type genus *Teius* Merrem, 1820), is to be given precedence over TUPINAMBIDAE Gray, 1825 (type genus *Tupinambis* Daudin, 1802), whenever the two names are applied to the same taxon;

(2) to place the following names on the Official List of Generic Names in Zoology:

(a) *Teius* Merrem, 1820 (gender: masculine), type species by monotypy *Lacerta teyou* Daudin, 1802;

(b) *Tupinambis* Daudin, 1802 (gender: masculine) type species by monotypy, *Lacerta teguixin* Linnaeus, 1758;

(3) to place the following names on the Official List of Specific Names in Zoology:

(a) *teyou, Lacerta,* Daudin, 1802 (specific name of the type species of *Teius* Merrem, 1820);

(b) *teguixin, Lacerta,* Linnaeus, 1758 (specific name of the type species of *Tupinambis* Daudin, 1802);

(4) to place the following names on the Official List of Family-group Names in Zoology:

(a) TEIIDAE Gray, 1827 (type genus *Teius* Merrem, 1820) with an endorsement that it is to be given precedence, by use of the plenary powers in (1) above, whenever it and TUPINAMBIDAE Gray, 1825, are applied to the same taxon;

(b) TUPINAMBIDAE Gray, 1825 (type-genus *Tupinambis* Daudin, 1802) with an endorsement that it is not to have priority over TEIIDAE Gray, 1827, whenever both names are applied to the same taxon.

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GENERIC NAME *AHUAUTLEA* DE LA LLAVE, 1832 (INSECTA, HETEROPTERA, CORIXIDAE): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS Z.N.(S.)2299

by Antti Jansson (*Department of Zoology, University of Helsinki, P. Rautatiekatu 13, SF-00100 Helsinki 10, Finland)*

Corixia mercenaria Say, 1832 was described from material obtained from Mexican markets as a product called 'ahuautle'; the specimens were originally collected from Lake Texcoco. The front page of the paper gives the printing date as 'Dec. 1831', but actual printing evidently did not take place until early 1832, probably January–February (cf. Jansson, 1979). Original specimens of *C. mercenaria* have been lost, but the species has been uniformly interpreted by several authors (Champion, 1901; Lundblad, 1928; Jaczewski, 1931; Hungerford, 1948). Further, Lundblad, 1928, based his description of the genus *Corisella* mainly on *Corixia mercenaria*, and Hungerford, 1948, chose *C. mercenaria* to be the type species of *Corisella* and selected a whole 'series of neotypes' which were also obtained from Mexican markets; from this series Jansson, 1979, designated one male specimen as *the* neotype.

2. *Ahuautlea mexicana* de la Llave, 1832 (printed in July 1832) was described from material obtained from Mexican markets and from Lake Texcoco. None of the specimens on which the description was based is known, and the description is mostly of such a nature that it applies to nearly any corixid of the size of a 'rice grain'. For instance, Guérin-Méneville, 1862, commented on the description, but could not recognize the species. Orozco y Berra, 1864, quoted the description in full, but then it remained unnoticed until the late 1950's.

3. *Corixa femorata* Guérin-Méneville, 1857 was also described from material bought from Mexican markets as 'ahuautle'. The type series was deposited in the Paris Museum, and the species later became the type species of the genus *Krizousacorixa* Hungerford, 1930.

4. Ancona, 1933, studied the composition of the 'ahuautle' by sampling Lake Texcoco, and found that the most common species of CORIXIDAE was *Krizousacorixa azteca* Jaczewski, 1931, but in small numbers *K. femorata* (Guérin-Méneville, 1857), *Corisella mercenaria* (Say, 1832) and *C. texcocana* Jaczewski, 1931 [= *C. tarsalis* (Fieber, 1851)] were taken also. However, while this was the situation in the early 1930's, other papers clearly indicate that the species composition has largely varied from time to time; *C. mercenaria* is the only species that has been reported from the

'ahuautle' steadily throughout the past 150 years (Say, 1832; Guérin-Méneville, 1862; Kirkaldy, 1898; Champion, 1901; Ancona, 1933; Olivares, 1964).

5. Deevey, 1957, found de la Llave's 1832 description of *Ahuautlea mexicana* and without any truly supporting facts claimed that *A. mexicana* 'has priority over the generic name *Krizousacorixa* Hungerford, 1930 and the specific name *Corixa femorata* Guérin-Méneville, 1857'. In the following discussion about the composition of the 'ahuautle' Deevey, 1957, referred to Ancona, 1933, and changed his mind by stating that *A. mexicana* 'is ordinarily *Krizousacorixa azteca* Jaczewski, 1931; it may also be *K. femorata* (Guérin-Méneville, 1857), while *Corisella texcocana* Jaczewski and *C. mercenaria* (Say) may be less important components of the product'.

6. Olivares, 1964, referring to Deevey, 1957, and widely interpreting de la Llave's 1832 text, then proposed the synonymy of *Krizousacorixa femorata* (Guérin-Méneville, 1857) with *Ahuautlea mexicana* de la Llave, 1832. Sailer, 1977, adopted this synonymy in the preface to the reprint edition of Hungerford's 1948 monograph on the CORIXIDAE of the Western Hemisphere.

7. Recent investigation (Jansson, 1979) has shown that *Ahuautlea mexicana* de la Llave, 1832 could not have been any of the species placed today in the genus *Krizousacorixa* Hungerford, but belonged to those placed in *Corisella* Lundblad, the most likely species being *C. mercenaria* (Say). To end the confusion, Jansson, 1979, designated the specimen designated as the neotype of *Corixia mercenaria* Say, 1832, also as the neotype of *Ahuautlea mexicana* de la Llave, 1832. This action made *A. mexicana* a junior objective synonym of *C. mercenaria* (cf. paragraph 1 and 2 above), and *Corisella* a junior objective synonym of *Ahuautlea.*

8. Say, 1832, used the generic name "*Corixia*, Geoff, Latr." for all the species of CORIXIDAE he dealt with in that paper, but because he credited Geoffroy for the genus and had previously used the form *Corixa* Geoff. (Say, 1825), *Corixia* was obviously an incorrect spelling (misprint?) of *Corixa*. The generic name *Ahuautlea* de la Llave, 1832 would thus have priority over the generic name *Corisella* Lundblad, 1928. However, the generic name *Ahuautlea* has been used only by Deevey, 1957; Olivares, 1964; and Sailer, 1977, and in all these cases as a name with suggested priority over *Krizousacorixa*, but the generic name *Corisella* is well known and has been widely used during the past years (e.g. Applegate, 1973; Brooks & Kelton, 1967; Frick & Sauer, 1974a, 1974b; Hilsenhoff, 1970; Hungerford, 1948; Hurlbert & al., 1970; Jansson, 1976; Lansbury, 1955, 1960; Scudder, 1976; Wilson, 1958). Obviously, to revive for the well known genus *Corisella* a name which is little

known and has been used only in connection with suggested priority over quite another genus could only lead to further confusion.

The International Commission on Zoological Nomenclature is therefore asked:–

(1) to use its plenary powers to suppress the generic name *Ahuautlea* de la Llave, 1832 for the purposes of the Law of Priority but not those of the Law of Homonymy;

(2) to place the generic name *Ahuautlea* as suppressed in (1) above on the Official Index of Rejected and Invalid Generic Names in Zoology;

(3) to place the generic names (a) *Corisella* Lundblad, 1928 (gender: feminine), type species as designated by Hungerford, 1948, *Corixia mercenaria* Say, 1832, and (b) *Krizousacorixa* Hungerford, 1930 (gender: feminine) type species by original designation *Corixa femorata* Guérin-Méneville, 1857 on the Official List of Generic Names in Zoology;

(4) to place the specific names (a) *mercenaria* Say, 1832, as published in the binomen *Corixia mercenaria*, and (b) *femorata* Guérin-Méneville, 1857, as published in the binomen *Corixa femorata* (specific names of the type species of *Corisella* Lundblad, 1928 and *Krizousacorixa* Hungerford, 1930, respectively) on the Official List of Specific Names in Zoology.

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PROPOSED USE OF THE PLENARY POWERS TO GRANT PRECEDENCE TO THE FAMILY-GROUP NAME EPHYDRIDAE OVER HYDRELLIIDAE (INSECTA, DIPTERA). Z.N.(S.)2334

By Wayne N. Mathis (*Department of Entomology, NHB-169, Smithsonian Institution, Washington D.C., 20560, U.S.A.*)

The purpose of the present application is to request the use of the International Commission on Zoological Nomenclature's plenary powers to grant precedence to the family name EPHYDRIDAE over its senior synonym HYDRELLIIDAE when the two are considered as synonyms.

2. Robineau-Desvoidy, 1830, p. 783, proposed the tribe name 'Hydrellideae', based on the generic name *Hydrellia* Robineau-Desvoidy, 1830, p. 790. The type species of this genus is *Hydrellia aurifacies* Robineau-Desvoidy, 1830, p. 791 (= *Notiphila flaviceps* Meigen, 1830, *Syst. Beschr. zweifl. Ins.*, vol. 6, p. 72), by subsequent designation by Coquillett, 1910, p. 553. Although the family-group name continued to be given status at the tribal and subfamilial levels, it has never been adopted at the familial level since its proposal.

3. Seven years after Robineau-Desvoidy's proposal of HYDRELLIDEAE, Zetterstedt (1837, p. 48) proposed the subfamily name EPHYDRINAE based on the generic name *Ephydra* Fallén, 1810, p. 22. The type species of this genus is *Ephydra riparia* Fallén, 1813, *K. Vetenskaps Akad. Handl.* for 1813(2), p. 246, by subsequent designation by Curtis, 1832, p. 413. All subsequent authors known to me have used EPHYDRIDAE as the family name, although sometimes with a variant spelling. Of the hundreds of publications that could be listed as documentation, I have selected and annotated the following:

Loew (1860; review of European Ephydridae, as "Ephydrinidae").

Loew (1862; review of North American Ephydridae, as "Ephydrinidae").

Becker (1896; review of literature and higher classification on world basis; species treatments limited to Europe).

Becker (1905; catalog of Palaearctic species).

Becker(1926; review of Palaearctic species).

Cresson (1942–1949; synopses of species of subfamilies (one subfamily not completed) for Nearctic Region).

Wirth (1965; catalog of North American species).

Wirth (1968; catalog of Neotropical species).

Nartschuck (1970; keys to species of European USSR).

Colless & McAlpine (1970; Insects of Australia).
Richards & Davies (1977; Imms' general text).
Cogan & Wirth (1977; catalog of Oriental species).

4. Suppression of HYDRELLIIDAE Robineau-Desvoidy, 1830, when used synonymously with EPHYDRIDAE Zetterstedt, 1837, seems clearly warranted in the interest of nomenclatural stability. The family name HYDRELLIIDAE Robineau-Desvoidy, however, should not be placed on the Official Index of Rejected and Invalid Family Names in Zoology, as it was and is still given status at the tribal and familial levels.

5. The Commission is therefore requested:

(1) to use its plenary powers to grant precedence to the family name EPHYDRIDAE Zetterstedt, 1837, over the family name HYDRELLIIDAE Robineau-Desvoidy, 1830, when the two are considered to be synonymous;

(2) to place on the Official List of Generic Names in Zoology:
   (a) *Ephydra* Fallén, 1810 (gender: feminine), type species, by subsequent designation by Curtis, 1832, *Ephydra riparia* Fallén, 1813;
   (b) *Hydrellia* Robineau-Desvoidy, 1830 (gender: feminine), type species, by subsequent designation by Coquillett, 1910, *Hydrellia aurifacies* Robineau-Desvoidy, 1830;

(3) to place on the Official List of Specific Names in Zoology:
   (a) *riparia* Fallén, 1813, as published in the binomen *Ephydra riparia* (specific name of type species of *Ephydra* Fallén, 1810);
   (b) *flaviceps* Meigen, 1830, as published in the binomen *Notiphila flaviceps* (valid name for the type species of *Hydrellia* Robineau-Desvoidy, 1830);

(4) to place on the Official List of Family-Group Names in Zoology:
   (a) EPHYDRIDAE Zetterstedt, 1837 (type genus *Ephydra* Robineau-Desvoidy, 1830), with an endorsement that it is to be given precedence over HYDRELLIIDAE Robineau-Desvoidy, 1830 (type genus *Hydrellia* Robineau-Desvoidy, 1830) whenever the two names are held to be synonyms;
   (b) HYDRELLIIDAE Robineau-Desvoidy, 1830, (type genus *Hydrellia* Robineau-Desvoidy,

1830) with an endorsement that it is not to be given priority over EPHYDRIDAE Zetterstedt, 1837, whenever the two names are held to be synonyms.

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NABIS CAPSIFORMIS GERMAR, [1838] (INSECTA, HETEROPTERA, NABIDAE): PROPOSED CONSERVATION UNDER THE PLENARY POWERS. Z.N.(S.) 2147

By Izyaslav M. Kerzhner (*Zoological Institute, Academy of Sciences of the USSR, Leningrad, U.S.S.R.*)

Nabis capsiformis Germar, [1838], p. 132, was described from South Africa (Cape of Good Hope). The species is very common in nearly all tropical and subtropical regions of the world. *N. capsiformis* is used as the valid name of the species in hundreds of works including faunistic lists, biocoenological papers, keys of regional faunas and catalogues. Those of Benedek (1969), Gross (1963), Kerzhner (1970), Kerzhner & Jaczewski (1964), Kiritshenko (1951), Remane (1964), Stichel (1958–1960), Villiers (1952), Wagner (1967) and Zimmerman (1948) are indicated here for fulfilment of the provisions of Article 79b of the Code.

2. *Nabis angustus* Spinola, 1837, p. 107 is described from Bombay. The name was never used as a valid one in the primary zoological literature. It was synonymised under *Nabis capsiformis* Germar by Distant (1904, p. 400) and from this date considered as a junior synonym of that name. No evidence exists that the African and Asiatic specimens are specifically or subspecifically distinct.

3. Kerzhner (1970, p. 353) discussed the dates of publication of Germar's and Spinola's works and paid attention to the priority of Spinola's forgotten name. Now it is possible to give more precise conclusions.

4. Germar's paper is published on p. 121–192 of 'Revue entomologique, publiée par G. Silbermann', vol. 5. This paper was dated 1837 by the majority of bibliographers and hemipterologists, presumably 1839 by Kerzhner (1970) and 1840 by Sherborn (*Index Animalium, 1801–1850*). The title-page of the volume is dated 1837, but printing was certainly finished in late 1840 because p. 351 contains an obituary of L. Gyllenhal, who died on 13 May 1840, and p. 348 contains an announcement of the sale of Dejean's collection on 1 December 1840. Germar's paper is preceded in the volume by a paper of Chevrolat (p. 41–110) dated under the title "Juillet 1838" and by a review of a work of Aubé (p. 111–114), published in Paris in September 1838 (Sherborn, *op. cit.*). The acceptance of livraisons 25 to 28 of 'Revue entomologique' by the library of the French entomological society was indicated at 'Séance du 21 novembre 1838' (*Bull. Soc. ent. Fr.* 1838, p. LXV). These livraisons are indicated as belonging to vol. 4 (*op. cit.* 1838, p. XC) but certainly belong to vol. 5 because all 5 volumes of 'Revue' include 30 livraisons (*op. cit.* 1833–1841) and livraisons

29 and 30, displayed at 'Séance du 3 fevrier 1841' *(op. cit.* 1841, p. III) form the end of vol. 5. Moreover it is stated by Hagen (1862, Bibliotheca entomologica, vol. 2, p. 166) that Silbermann's 'Revue entomologique' is published in 'six livraisons par annêe', *i.e.* each volume contains six numbers. Vol. 5 from the library of the French entomological society (xerox copies of necessary pages were sent to me by Dr. J. Péricart) bears handwritten inscriptions 'Séance du 21 9bre 1838' ('9bre' corresponding to November as in Roman numbering of months still used in 19th century) on the title-page and on p. 121, the first page of Germar's paper, and 'Séance du 3 fevrier 1841' on p. 225. Accordingly I accept [21 November 1838] as the date of publication of Germar's paper.

5. Spinola's book was published in 1837 between March 4 (Spinola, 1837, p. 383) and September 6 (*Bull. Soc. ent. Fr.* 1837, p. LIX). A new title-page was printed in 1840 and has sometimes been wrongly used for dating Spinola's names (*e.g.* by Distant, 1904).

6. In accordance with the Article 79b of the Code, the International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to suppress the specific name *angustus* Spinola, 1837, as published in the binomen *Nabis angustus*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the specific name *capsiformis* Germar, [1838], as published in the binomen *Nabis capsiformis*, on the Official List of Specific Names in Zoology;

(3) to place the specific name *angustus* Spinola, 1837, as published in the binomen *Nabis angustus*, and as suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.

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CLYTIA LAMOUROUX, 1812, *LAOMEDEA* LAMOUROUX, 1812, AND *CAMPANULARIA* LAMARCK, 1816 (COELENTERATA, HYDROIDA): PROPOSED DESIGNATIONS OF TYPE SPECIES BY USE OF THE PLENARY POWERS, AND COMMENTS ON RELATED GENERA. Z.N.(S.)2326.

By Paul F.S. Cornelius *(Department of Zoology, British Museum (Natural History), Cromwell Road, London SW7 5BD).*

1. Introduction

The marine hydroid family CAMPANULARIIDAE includes several intertidal and offshore genera widely known among biologists. One of these, *Obelia* Péron & Lesueur, 1810, p. 355, although originally based on the medusa stage, has become the best known of any genus of colonial hydroid; but the closely related *Laomedea* Lamouroux, 1812, p. 184, and *Campanularia* Lamarck, 1816, p. 112, are also well known. Another familiar genus in this family is *Clytia* Lamouroux, 1812, p. 184. There are long-standing nomenclatural problems concerning all these genera and some of the species in them. *Campanularia* and *Laomedea* have been confused by many authors, and some have used *Obelia* in place of *Laomedea.* Since the genera are comparatively well known the need for stability is pressing, but there is confusion also over the type species of these genera. The purpose of this paper is to propose designations of type species under the plenary powers of the Commission where necessary, to stabilise the generic nomenclature in this family. The proposals follow a world-wide generic revision of the family in which the need for the use of these powers has been made apparent (Cornelius, in prep.).

2. *Laomedea* and *Obelia*

2. The widely used genus name *Laomedea* Lamouroux, 1812, p. 184 (Coelenterata, Hydroida, CAMPANULARIIDAE), is a junior subjective synonym of another well known name, *Obelia* Péron & Lesueur, 1810, p. 355 (Cornelius 1975, pp. 253–254), and under the Code should not be used. But the genus to which the name *Laomedea* has been applied is found on the shores of all continents except Antarctica. Application of the Code would lead to *Laomedea* being dropped, and this would cause confusion.

3. The following references establish a *prima facie* case for the conservation of *Laomedea* under the provisions of Article 23. Each is an important work in which *Laomedea* was used as a valid name: Kramp, 1935, 1938; Vervoort, 1946; Leloup, 1952; Buchanan, 1957; Hamond, 1957; Marine Biological Association,

1957; Barrett & Yonge, 1958; Teissier, 1965; Robins, 1969.

4. Conservation of the name *Laomedea* can be conveniently achieved by designating as type species a species not originally included, so that there will no longer be any question of synonymy with the older name *Obelia.* The two species originally included in *Laomedea* were *Sertularia dichotoma* Linnaeus, 1758, p. 812 (now universally assigned to the 'medusa genus' *Obelia*) and *S. spinosa* Linnaeus, 1758, p. 812 (now assigned to the bryozoan genus *Vesicularia* Thompson, 1830, pp. 89, 97; e.g. Prenant & Bobin, 1956, p. 276); and neither could usefully be designated type species. Therefore, I propose that *Laomedea flexuosa* Alder, 1857, p. 122, a species not originally included, be designated type species of the genus *Laomedea* Lamouroux, 1812, by use of the plenary powers (paragraph 28). I define that genus as follows (after Cornelius, in prep.): colonial CAMPANULARIIDAE with: polyp generation forming upright colonies; stolon branching but not anastomosing; no hydrothecal spherule; true diaphragm present; hydranth with well developed hypostome; gonotheca aperture typically circular, wide; gonophores sessile, interpreted as vestigial medusae in species which have been closely studied.

5. It should be noted in passing that Broch (1905, p. 10) proposed that *Laomedea loveni* Allman, 1859, p. 138, should be type species of *Laomedea;* but *loveni* was not originally included. The valid species *loveni* has been widely referred to the genus *Gonothyraea* Allman, 1864, p. 374, a practice which seems biologically sound. Hence the Commission is not asked to ratify Broch's invalid designation.

3. *Campanularia, Orthopyxis* and *Rhizocaulus*

6. The well known genus name *Campanularia* Lamarck, 1816, p. 112, also presents problems which need action under the plenary powers. *Campanularia* had no type species validly designated until Nutting (1915, p. 28) selected *Sertularia verticillata* Linnaeus, 1758, p. 811. Naumov, 1960, p. 249 (repeated in translation in Naumov, 1969, p. 269) later designated *S. volubilis* Linnaeus, 1758, p. 811, as type species and Millard, 1966, p. 477 and Millard, 1975, p. 203, concurred; but Nutting's designation of *verticillata* has priority. However, there are difficulties resulting from Nutting's overlooked designation. The species *verticillata* stands out from the others in the genus *Campanularia* s. str. and some authors have removed it to its own genus. I agree with this action (Cornelius, in prep.).

7. Stechow, 1919, was the first to propose a genus to accommodate *S. verticillata* (and some dubious species similar in colony habit which he listed). For this genus he introduced the name *Rhizocaulus* Stechow, 1919, p. 852, type species *Sertularia*

verticillata Linnaeus, 1758, by original designation. It is proposed to retain the name *Rhizocaulus,* by setting aside Nutting's designation (paragraph 28).

8. Application of the Code would restrict *Campanularia* to *verticillata* and the few similar nominal species listed by Stechow, 1919, and Naumov, 1960, 1969. The familiar intertidal and shallow water species usually referred to *Campanularia* would need a new genus name. Since no familiar name is available confusion would be inevitable, so long as the generic separation of *verticillata* were upheld.

9. A second genus was later established to accommodate *S. verticillata* and one other species, namely *Verticillina* Naumov, 1960, pp. 9, 115, 122, 269 (also in translation in Naumov, 1969, pp. 6, 115, 123, 291); type species *Sertularia verticillata* Linnaeus, 1758, p. 811, by original designation. Although more pleasing than *Rhizocaulus,* the name *Verticillina* is clearly a junior objective synonym of *Rhizocaulus* since it has the same type species, and regrettably it should not be used.

10. It should again be noted in passing that Broch, 1905, p. 10, designated *'Campanularia calyculata* Hincks, 1853', p. 178 (lapsus for *caliculata*) as type species of *Campanularia*, but *caliculata* was not among the originally included species. The species *C. caliculata* is currently referred to the genus *Orthopyxis* J.L.R. Agassiz, 1862, pp. 297, 355 (type species by monotypy *Clytia (Orthopyxis) poterium* J.L.R. Agassiz, 1862, p. 297, subjectively regarded as conspecific with *caliculata* by Cornelius, in prep., and by others listed therein). *Orthopyxis* was introduced by Agassiz, 1862, as a subgenus of *Clytia* on page 297 of his work, including the 'new' species *poterium* alone; but on page 355 he upgraded *Orthopyxis* to genus. [Although employing the combination *Clytia poterium* in the 'Explanation of the plates' following page 380 of the main text, in the captions of plates 28 and 29 therein; and the lapsus *Clythia poterium* on the plates themselves. Never theless, the name *Orthopyxis* was validly introduced.] On page 355 of the work Agassiz, 1862, implicitly used the combinations *'Orthopyxis (Orthopyxis) poterium', 'Orthopyxis (Campanularia) volubiliformis'* and *'Orthopyxis (Laomedea) integra'* of various authors). Thus *poterium* can righly be regarded as type species by monotypy of the subgenus *Orthopyxis* Agassiz and of the genus *Orthopyxis* Agassiz.

11. There is some debate about whether *Orthopyxis* s. str. and *Campanularia* s. str. should be taken as one genus or two. Millard, 1975, combined them; but Ralph, 1957, and Cornelius, in prep., have upheld a separation. If the two genera are regarded as distinct, then I believe none would doubt that *caliculata* would

ideally go into *Orthopyxis*, and not into *Campanularia*. Hence Broch's, 1905, invalid designation of '*calyculata*' as type species of *Campanularia* would, if accepted, prove confusing. A new genus name would have to be found for *Campanularia* auctorum. No familiar name is available, and the Commission is not asked to ratify Broch's invalid proposal.

12. I therefore propose that *Sertularia volubilis* Linnaeus, 1758, p. 811, should be designated as type species of *Campanularia* by use of the plenary powers. *Campanularia* could then still be used sens. auct.; and the species *S. verticillata* would become known as *Rhizocaulus verticillatus*, which is taxonomically acceptable.

13. The remaining species once assigned to *Campanularia* in the sense of, for example, Hincks, 1868, and Bedot, 1901–1925, would have to be placed in other genera, in keeping with some previous opinions. These genera would be: *Laomedea* Lamouroux, 1812 (as defined here); the acceptable genus *Hartlaubella* Poche, 1914, p. 76 (to accommodate *Sertularia gelatinosa* Pallas, 1766, p. 116, alone; discussion in Cornelius, in prep.); and the unacceptable *Paracalix* Stechow, 1923a, p. 3, which under the Code is available to receive the remainder.

14. The name *Paracalix* has not been used since it was introduced. The type species of *Paracalix*, namely *Campanularia pulcratheca* Mulder & Trebilcock, 1914, p. 11 (by monotypy), was based on a deformed specimen of *Campanularia* sp., possibly *C. volubilis* (Linnaeus, 1758); so that there are strong subjective grounds for regarding *Paracalix* and *Campanularia* as congeneric. Unless the name *Campanularia* were given the meaning proposed here (paragraphs 6–16, 28) *Paracalix* would replace *Campanularia*, to the detriment of established usage. But designating *C. volubilis* (Linnaeus, 1758) as type species of *Campanularia* would make *Paracalix* a very safe junior subjective synonym of *Campanularia*, and the problem would be resolved. It seems unlikely that the type species of *Paracalix* would ever again be regarded as a valid species by a serious worker. But if it were, then if necessary it could be removed to the genus *Paracalix* without affecting the stability of the name *Campanularia*.

15. If the rules were applied and the genus name *Campanularia* were restricted to the large, upright-growing species *Sertularia verticillata* Linnaeus, 1758, and the few closely allied species taxa listed in Stechow, 1919, and Naumov, 1960, 1969, then *Campanularia* would no longer be available for the remainder of the genus sens. auct.; that is for the small, stoloniferous species with which the name is usually associated. This would cause confusion among a wide variety of biologists ranging from advanced course students and their teachers to developmental physiologists,

ecologists and others engaged in research. Conservation of the existing widespread use (but not necessarily the sense) of *Campanularia*, and stability, would be achieved by setting aside Nutting's designation of *S. verticillata* Linnaeus, 1758, as type species of *Campanularia;* and admitting Naumov's (1960) designation of *S. volubilis* Linnaeus, 1758. I define the genus *Campanularia* as follows (after Cornelius, in prep.): stoloniferous and colonial CAMPANULARIIDAE, stolon not anastomosing; hydrothecae borne on pedicels inserted on the stolon at irregular intervals; sub-hydrothecal spherule present; hydrothecal diaphragm absent; no medusa stage. This definition expressly excludes the genus *Orthopyxis* J.L.R. Agassiz, 1862, pp. 297, 355, as redefined by Ralph, 1957, p. 834, and by Cornelius, in prep. But it happens that the species of *Orthopyxis* do not impinge on the immediate discussion.

16. It should be stressed that the proposed type species of *Campanularia* Lamarck, 1816, is *Sertularia volubilis* Linnaeus, 1758 (=*C. volubilis* sens. auct., e.g. Hincks, 1868) and not *S. volubilis* sens. Ellis & Solander, 1786, p. 51 (usually subjectively referred to *Clytia hemisphaerica* (Linnaeus, 1767); details in Millard, 1966, p. 477 and Cornelius, in prep.). This point is particularly important since *'Sertularia volubilis* Ellis & Solander' was designated as type species of the genus *Clytia* Lamouroux, 1812, p. 184, by Mayer, 1910, p. 262. Since this is not the same as *S. volubilis* Linnaeus, 1758, *Clytia* is a genus based on a misidentified type species. Under Article 70a(i) the Commission is invited to use its plenary powers to designate the species that Ellis & Solander had before them, namely, *Campanularia johnstoni* Alder, 1856a, p. 359, as type species of the genus *Clytia* Lamouroux, 1812. The reasons are as follows. Ellis & Solander included among their indications of *S. volubilis* an illustration with a binominal name, that is to say *Sertularia uniflora* Ellis, 1768, pl. 19, fig. 9 (there being no related text). The Ellis, 1768, engraving was that used in the later, Ellis & Solander work so that the two names are objectively linked. However, the combination *Sertularia uniflora* had been used still earlier, by Pallas, 1766, p. 121, and Ellis's usage was homonymous. [The Pallas species was in fact a junior objective synonym of *S. volubilis* Linnaeus, 1758 – the other species; details in Cornelius, in prep.] The earliest unpreoccupied name which it is possible to link unequivocally with *S. uniflora* sens. Ellis, 1768, is *Campanularia johnstoni* Alder, 1856a, pp. 359–360, pl. 13, fig. 8. Alder in his text related *johnstoni* to the illustration of Ellis & Solander, 1786. The type species of the genus *Clytia* Lamouroux, 1812, should, therefore, be known as *Clytia johnstoni* (Alder, 1856a). Most authors have taken *C. johnstoni* to be subjectively conspecific with

Medusa hemisphaerica Linnaeus, 1767 (=*Clytia hemisphaerica* auct.); but the two are respectively hydroid and medusa stages in a genus with many unsolved taxonomic problems and there are still some doubts that they represent the same species (discussion in Cornelius, in prep.).

17. Lamouroux, 1812, originally included three species in *Clytia*, cited as *'Sertularia volubilis* Ell.', *'S. syringa* Ell.' and *'S. verticillata* Ell.'. The references must be to Ellis & Solander, 1786, and not to Ellis, 1755, since binominal names occur only in the later work. The nominal species concerned, as it happens, were all included in Linnaeus, 1758.

18. Although the name *Medusa hemisphaerica* Linnaeus, 1767, has been attributed to Gronovius 1760, p. 38, by some authors his usage was not strictly binominal (Millard, 1966, p. 477). Similarly, Bedot's implication (1901, p. 486) that Houttuyn, 1770, p. 423, might have introduced the name *hemisphaerica* so early as 1761, is misleading. Houttuyn did not use the words 'Medusa hemisphaerica' in a binominal sense; and the volume in which they appeared was dated 1770, conveniently following most of the other early works in question.

19. Lastly, *Medusa hemisphaerica* Linnaeus, 1767, is type species of the genus *Thaumantias* Eschscholtz, 1829, p. 102 (designated by Forbes, 1848, p. 41). *Thaumantias* is hence a junior subjective synonym of *Clytia*. The name *Thaumantias* was once widely used but no longer finds a place in standard works (e.g. Kramp, 1961). The subjective synonymy of *hemisphaerica* with the type species of *Clytia* [namely *C. johnstoni* (Alder, 185a; see paragraph 16)] is so strong as to make unlikely the future resurrection of *Thaumantias*. Even if the two species were recognized it is most improbable that they would be placed in separate genera.

4. Other names

20. If the present proposals are adopted certain unfamiliar genus and subgenus names will fall, to the advantage of hydroid nomenclature.

21. The genus *Campalaria* Hartlaub, 1897, p. 449, was introduced to embrace solely the nominal species *Campalaria conferta* Hartlaub, 1897. The name *Campalaria* has apparently been used only once since its introduction, by Hamond, 1957, p. 315, in the combination *Laomedea (Campalaria) conferta*. The species, itself now regarded as invalid (Cornelius, in prep.), falls within the generic diagnosis given for *Laomedea* in paragraph 4; and if the proposals in paragraph 28 are accepted, the genus name *Campalaria* will be regarded as a junior subjective synonym of *Laomedea* as here understood. If the proposals are not accepted,

then *Campalaria* would have to replace *Laomedea,* to the detriment of established usage.

22. The subgenus *Eulaomedea* Broch, 1910, p. 189, has as type species *Laomedea flexuosa* Alder, 1857, p. 122, by monotypy. The name would fall as a junior objective synonym of *Laomedea.* Stechow, 1923b, p. 95, referred *Eulaomedea* to *Laomedea,* not recognizing the subgenus, a course with which I agree. But Splettstösser, 1924, p. 424, and Hummelinck, 1936, pp. 51, 57, interpreted the subgenus *Eulaomedea* widely, that is in the sense in which the authors listed in paragraph 3 understood the genus *Laomedea.* The genus name *Laomedea* was applied by Broch, 1910, 1928, Splettstösser, 1924, and Hummelinck, 1936, to a large group of species comprising, they said, three subgenera: *Eulaomedea (=Laomedea* s. str.), *Obelia* Péron & Lesueur, 1810, and *Gonothyraea* Allman, 1864. But the great majority of authors have used *Laomedea* in the narrow sense and regarded it and *Obelia* and *Gonothyraea* as full genera.

23. Apart from subgeneric use without comment by Vervoort, 1946, pp. 284–285, also Vervoort, 1959, p. 316, the name *Eulaomedea* was not used again until Rees & Thursfield, 1965, p. 101, employed it as a genus name, but likewise without proper explanation. Rees wrote: 'The reason for adopting *Eulaomedea* in preference to *Laomedea* will be discussed elsewhere; it is sufficient here to state that the type species of *Laomedea* is a true *Obelia* producing [a] medusa'; indicating that he had realized the synonymy between *Obelia* and *Laomedea* mentioned in paragraph 2. The only other use of *Eulaomedea* of which I am aware was by Millard, 1975, p. 223, who did not comment on the nomenclatural problems and who used the name in the sense of *Laomedea* as understood here. Reversing my previous opinion (Cornelius, 1975, pp. 253–254) I recommend conserving the name *Laomedea* s. str. Although *Eulaomedea* is available under the Code it has hardly been used. In any case, the oldest available name for the genus under discussion would be *Campalaria* (see paragraph 21), not *Eulaomedea.*

24. The subgenus *Paralaomedea* was apparently introduced by Broch, 1928, p. 74, as *Laomedea (Paralaomedea).* The taxon was actually first proposed and defined by Splettstösser, 1924, pp. 424–425, but given neither formal subgeneric rank nor a name. Broch, 1928, gave it both, applying the new name *Paralaomedea.* The subgenus has always included only the species *Laomedea neglecta* Alder, 1856b, p. 440, pl. 16, figs 1–2, which is type species by monotypy. Hummelinck, 1936, p. 51, and Vervoort, 1946, p. 285, followed Broch's usage, Vervoort only in his key to species; but the name seems otherwise unused. I have concurred

(Cornelius, in prep.) with these authors that there *might* be a case for referring the species *neglecta* to a supra-specific taxon distinct from other species of *Laomedea*, on the basis of its reproductive structures. But the acknowledged medusoid nature of the female gonophore of *neglecta*, described by Splettstösser, 1924, suggests that there are not good grounds for a separation. But if a separation were upheld the name *Paralaomedea* would be both available and acceptable taxonomically. Meanwhile, and subject to the present proposals being accepted, I regard the subgenus *Paralaomedea* as a junior subjective synonym of the genus name *Laomedea*.

25. Broch, 1910, p. 184, and Broch, 1928, p. 73, referred all CAMPANULARIIDAE lacking a hydrothecal diaphragm to the genus *Campanularia* Lamarck, 1816. He recognized two subgenera: *Clytia* Lamouroux, 1812, in which medusa release occurred; and *Eucampanularia* Broch, 1910, p. 184, in which the gonophore was sessile (i.e. in which the medusa was retained and vestigial). Hummelinck, 1936, p. 49–50, and Vervoort, 1946, pp. 268–269, followed Broch's, 1910, usage. But all subsequent workers have understood the genus *Campanularia* in the more restricted sense, equivalent to Broch's subgenus *Eucampanularia*; and have re-instated *Clytia* to full genus status. The subgeneric name *Eucampanularia* has apparently not been used again. The genera *Clytia* and *Campanularia* s. str. (=Broch's *Eucampanularia*) have been widely regarded as distinct, and there seems no value to classification in following Broch (1910, 1928) in uniting them as subgenera of a single genus. Further, his action was nomenclaturally invalid since it is logically untenable to treat *Clytia* Lamouroux, 1812, as a subgenus of the *younger* genus *Campanularia* Lamarck, 1816.

26. The species *Sertularia volubilis* Linnaeus, 1758, p. 811, has been designated type species of *Eucampanularia* Broch, 1910 (by Cornelius, in prep.). If the present proposal is adopted, that *volubilis* should become type species of *Campanularia* Lamarck, 1816, then the subgenus name *Eucampanularia* Broch, 1910, would fall in the objective synonymy of the genus name *Campanularia* Lamarck, 1816 (see paragraph 28).

27. Some names derived from *Campanularia* and *Laomedea* are considered as unjustified emendations or incorrect subsequent spellings (Cornelius, in prep.), and hence as invalid or not available: *Campanula* Westendorp, 1843, p. 23; *Lomedea* Dana, 1846, p. 689; *Campanulata* J.L.R. Agassiz, 1862, p. 354; *Clytea* Wright, 1862, p. 308; *Clythia* J.L.R. Agassiz, 1862, pl. 28; *Clythia* van Beneden, 1866, p. 166; *Cmpanularia* Mulder & Trebilcock, 1914, p. 11; *Laomedia* Nutting, 1915, p. 123; *Eulaomeda* Rees & Thursfield, 1965, p. 102.

5. Proposals

28. To preserve the established use of the genus names *Laomedea* Lamouroux, 1812, and *Campanularia* Lamarck, 1816, the Commission is therefore requested:

(1) to use its plenary powers:
   (a) to set aside all designations of type species hitherto made for the nominal genus *Laomedea* Lamouroux, 1812, and having done so to designate the nominal species *Laomedea flexuosa* Alder, 1857, as type species of that genus;
   (b) to set aside all designations of type species for the nominal genus *Campanularia* Lamarck, 1816, other than that of *Sertularia volubilis* Linnaeus, 1758, by Naumov, 1960;
   (c) to set aside all designations of type species for the nominal genus *Clytia* Lamouroux, 1812, and having done so to designate the nominal species *Campanularia johnstoni* Alder, 1856a, as type species of that genus;

(2) to place on the Official List of Generic Names in Zoology:
   (a) *Laomedea* Lamouroux, 1812 (gender: feminine), type species, by designation under the plenary powers in (1) (a) above, *Laomedea flexuosa* Alder, 1857;
   (b) *Campanularia* Lamarck, 1816 (gender: feminine), type species, by designation by Naumov, 1960, ratified by use of the plenary powers in (1) (b) above, *Sertularia volubilis* Linnaeus, 1758;
   (c) *Clytia* Lamouroux, 1812 (gender: feminine), type species, by designation under the plenary powers in (1) (c) above, *Campanularia johnstoni* Alder, 1856a;

(3) to place on the Official List of Specific Names in Zoology:
   (a) *flexuosa* Alder, 1857, as published in the binomen *Laomedea flexuosa* (specific name of type species of *Laomedea* Lamouroux, 1812);
   (b) *volubilis* Linnaeus, 1758, as published in the binomen *Sertularia volubilis* (specific name of type species of *Campanularia* Lamarck, 1816);
   (c) *johnstoni* Alder, 1856a, as published in the binomen *Campanularia johnstoni* (specific

name of type species of *Clytia* Lamouroux, 1812).

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SEMBLIS MARGINATA PANZER, 1799 (INSECTA, PLECOPTERA): ADDITIONAL STEPS NEEDED TO CONSERVE THIS NAME. Z.N.(S.)1799

By the Secretary, International Commission on Zoological Nomenclature

INTRODUCTION

The present application began in 1967 with the publication by Dr Carlo Consiglio (*University of Rome*) of a paper in *Bull. zool. Nom.* vol. 24, pp. 246–7 in which he showed, first, that *Perla maxima* (Scopoli, 1763), originally described in *Phryganea*, was applied by most authors (following Klapálek, 1923) to *Perla grandis* Rambur, 1842 (of which *Perla alpicola* Klapálek, 1900 is a synonym); and, secondly, that it was in fact a senior synonym of *Perla marginata* (Panzer, 1799), originally described in *Semblis*, a name in general use. He therefore asked for the suppression of *Phryganea maxima* Scopoli, 1763.

2. In 1969 Professor Brinck communicated a resolution of the Fourth Symposium on Plecoptera in opposition to Dr Consiglio's proposal. The Commission's Secretariat therefore took no further action on the case. In 1978, however, Professor Brinck wrote again to draw attention to Zwick's 1973 monograph on Plecoptera (*Das Tierreich* vol. 94) in which Dr Consiglio's view was upheld. He said that this view was now supported by him as well as by Professor Illies and Dr Zwick (both of *Limnologische Flussstation, Schlitz, BRD*). In further correspondence, he agreed that the relationship between *Phryganea maxima* Scopoli, 1763 and *Semblis marginata* Panzer, 1799 would be better settled by the 'relative precedence' procedure than by outright suppression of the senior synonym.

3. Dr Consiglio's original proposal, modified to take account of the 'relative precedence' procedure, was accordingly put to the Commission on 20 August 1979 in Voting Paper (1979)10 and was accepted by 17 votes to 2, with one abstention and three late affirmative votes. It was only when I came to prepare the Opinion giving effect to the Commission's decision that I discovered that *Semblis marginata* Panzer, 1799 — the name given precedence by the Commission's vote — was technically invalid as a junior primary homonym of *Semblis marginata* Fabricius, 1793. This opened up a whole range of further complications, which would never have been resolved without the patient and generous help of Professor Brinck and Dr Peter Zwick, for which I am most grateful.

THE IDENTITY OF *SEMBLIS MARGINATA* FABRICIUS, 1793

4. *Semblis marginata* Fabricius, 1793, seems to have been completely overlooked for nearly 140 years. The only citations known to Dr Zwick are:

Pictet, 1833, *Ann. Sci. nat.* vol. 28, p. 53
Burmeister, 1839, *Handb. Ent.* vol. II (2)(ii), p. 880
Newman, 1839, *Mag. nat. Hist.* N.S. vol. 3, p. 36
Pictet, [1842], *Hist. nat. Ins.*, Monogr. Névr., Perlidés, p. 200.

In all these cases the name is given as an invalid, though senior, synonym of *Semblis marginata* Panzer, 1799.

5. Through the kindness of Dr Tuxen and Professor Brinck, Fabricius's type of *Semblis marginata* was lent to Dr Zwick for study. He found it to be a female of *Marthamea vitripennis* (Burmeister, 1839). He further reported: '*Perla vitripennis* Burmeister, 1839, p. 880, was described recognizably and has been in continuous use at least since the excellent redescription by Pictet, [1842], based on the female type which is now lost. *P. bicolor* Burmeister, 1839, has been thought to be the male of *P. vitripennis* since Pictet, [1842] and the surviving type that I saw some years ago confirms this view. There has been no other ambiguity about the identity of *P. vitripennis* and the name has been used in a uniform way all the time. This alone makes it worth preserving, and warrants the suppression of its unused senior synonym *Semblis marginata* Fabricius, 1793, which has never been considered to denote a valid species, and which has been completely forgotten for over 100 years. This is the more desirable because *Perla vitripennis* is widely known as the type species of *Marthamea* Klapálek, 1907.'

THE NOMENCLATURAL VALIDITY OF *PERLA VITRIPENNIS* BURMEISTER, 1839

6. The nomenclatural validity of *Perla vitripennis* Burmeister, 1839 clearly depends on the action of the first reviser who considered that name and *P. bicolor* as synonyms and clearly selected one as the valid name. It has not been easy to establish the facts on this point. Schneider, 1848, *Uebers. Arb. Veränd. schles. Ges. vaterl. Kultur* im Jahre 1847, p. 113, was the first definitely to treat both names as denoting one species; but when he spoke of males he used the name *P. bicolor*, and when of females, the name *P. vitripennis*. In 1885, *Z. Entomol. Breslau*, p. 30, he used *P. vitripennis* as the valid name, but did not cite *P. bicolor* as a synonym.

7. In 1888, Rostock, *Neuroptera germanica, die Netzflügler*

Deutschlands (Zwickau), p. 162, clearly used *P. vitripennis* Burmeister as the valid name (by printing it in bold-faced type) and cited *P. bicolor* as a synonym. This first reviser action is the foundation of all current practice, from Klapálek, 1907, *Rospr. Ceske Akad.*, ser. 2, vol. 16(16), p. 19, onwards. No action by the Commission is necessary on this point.

8. The following references satisfy the requirements of Article 79b in demonstrating usage of *Perla vitripennis* Burmeister, 1839, as a valid name (the last such use of *P. bicolor* was by Albarda, 1889, *Cat. Névroptères Pays-Bas*):

1940. Claassen, P.W. Cat. Plecoptera of the World. *Mem. Cornell Univ. agric. exper. Station*, vol. 232, pp. 1–235
1942. Vasiliu, G.D. & Costea, A., Syst. Überprüfung Steinfliegen (Plecoptera) Rumaniens und deren geogr. Ausdehnungsfläche. *Anal. Inst. Cerc.pisc. Roman.* vol. 1, pp. 191–204
1951. Despax, R. Plécoptères. *Faune de France*, vol. 55, pp. 1–280
1955. Illies, J. Steinfliegen oder Plecoptera. In Dahl (ed.), *Tierwelt Deutschlands*, vol. 43, pp. 1–150
1957. Winkler, O. Plecoptera slovenska. *Biol. práce* vol. 3(7), pp. 1–98
1959. Aubert, J. Plecoptera. *Insecta helvetica*, vol. 1, pp. 1–138
1963.——Les Plécoptères de la péninsule ibérique. *Eos*, vol. 39, pp. 23–107
1966. Zhiltzova, L.A. (Plecoptera of European USSR outside the Caucasus). *Entomol. Obozr* vol. 45, pp. 525–549
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1972. Zwick, P. Die Plecopteren Pictets und Burmeisters, mit Angaben über weiteren Arten. *Rev. suisse Zool.* vol. 78 (1971), pp. 1123–1194
1973.——Insecta: Plecoptera. Phylogenetisches System und Katalog. *Das Tierreich*, vol. 94, pp. I–XXXII, 1–465
1974. Kis, B. Plecoptera. *Fauna Rep. soc. România* vol. 8 (7), pp. 1–273
1980. Kittel, W. Widelnice (Plecoptera) Rzeki Pilicy, I. *Acta Univ. lodz.* ser. 2, vol. 9, pp. 79–118.

DESIGNATION OF THE TYPE SPECIES OF *MARTHAMEA* KLAPÁLEK, 1907

9. *Marthamea* was established by Klapálek, 1907, *Rospr. Ceske Akad.*, ser. 2, vol. 16 (16), p. 19, for *P. vitripennis* Burmeister, 1839 and *P. selysi* Pictet, [1842], p. 208. Neither was designated as type species. It was not until 1923, *Colls. zool. Selys Longchamps,* p. 97, that he clearly designated *P. vitripennis* as type species. At the same time he cited *P. vitripennis* and *P. bicolor* together and clearly chose the former as the valid name.

CONCLUSIONS

10. The International Commission on Zoological Nomenclature is therefore asked to take the following actions, in addition to those that it has already taken on Voting Paper (1979)10:

(1) to use its plenary powers to suppress the specific name *marginata* Fabricius, 1793, as published in the binomen *Semblis marginata*, for the purposes of both the Law of Priority and the Law of Homonymy;

(2) to place the generic name *Marthamea* Klapálek, 1907 (gender: feminine), type species, by subsequent designation by Klapálek, 1923, *Perla vitripennis* Burmeister, 1839, on the Official List of Generic Names in Zoology;

(3) to place the specific name *vitripennis* Burmeister, 1839, as published in the binomen *Perla vitripennis* (specific name of type species of *Marthamea* Klapálek, 1907) on the Official List of Specific Names in Zoology;

(4) to place the specific name *marginata* Fabricius, 1793, as published in the binomen *Semblis marginata*, on the Official Index of Rejected and Invalid Specific Names in Zoology, as suppressed under the plenary powers in (1) above.

This application is supported by Dr Peter Zwick, Professor Dr Joachim Illies, and Professor Dr Per Brinck.

NOMIOIDES SCHENCK, 1866: PROPOSED DESIGNATION OF TYPE SPECIES (INSECTA, HYMENOPTERA, HALICTIDAE). Z.N.(S.) 2178

By Yu. A. Pesenko and I.M. Kerzhner (*Zoological Institute, Academy of Sciences of the USSR, Leningrad, USSR*)

1. Schenck, 1866, p. 333, established a new genus *Nomioides* for one species, *Andrena pulchella* Jurine, 1807 (with *Apis parvula* Fabricius, 1798 cited in synonymy). There was no redescription of the species but a reference was given to a previous good description of *A. pulchella* by Schenck, 1859, p. 295).

2. It was shown by Mocsáry, 1879, p. 30, and accepted by Handlirsch, 1888, pp. 398–399 and Blüthgen, 1925, p. 7, that Schenck, 1859, has misidentified *Andrena pulchella*. *Nomioides pulchellus* Jurine sensu Schenck, 1859, 1866, non Jurine, 1807, is identical with *Apis minutissima* Rossi, 1790, p. 109, while *Andrena pulchella* Jurine, 1807 is a junior synonym of *Andrena variegata* Olivier, 1789, p. 139, now *Nomioides variegatus*. The identity of *Apis parvula* Fabricius is doubtful; it is most probably a synonym of *Nomioides minutissimus* (Rossi) or of some other related species.

3. As Schenck misidentified the type species of his new genus, the type species should be designated by the Commission (Code, Art. 70a).

4. Sandhouse, 1943, p. 578, and Michener, 1965, p. 183, 1978, p. 504, indicated as type species of *Nomioides 'Andrena pulchella* Jurine, 1807 = *Apis minutissima* Rossi, 1790', but this synonymy is wrong (see above). No other citations of the type species of *Nomioides* are known to us.

5. It is evident that *A. minutissima* Rossi (= *N. pulchella* sensu Schenck), i.e. the species actually before Schenck, and not *A. pulchella* Jurine, i.e. the species named by Schenck, is understood as type species by all later authors. For example, Blüthgen, 1925, p.4, distinguished the *N. minutissima* group which was later treated by Cockerell, 1935, p. 90, and Blüthgen, 1937, p. 3, as the subgenus *Nomioides* s.str., while Blüthgen, 1937, p. 3, named the *N. variegata* group as the subgenus *Eunomioides*. Therefore designation of *Apis minutissima* as type species of *Nomioides* seems to be the best solution.

6. An additional problem is the gender of the name *Nomioides*. As indicated by Blüthgen, 1925, p. 6, Schenck, Handlirsch, Morawitz and Margetti used the name as feminine, and Mocsáry, Friese, Cockerell, Alfken, Gribodo and Debski as masculine, while if we consider the origin of *-ides* from the Greek *eidos*, the name would be neuter. In the International Code of

Botanical Nomenclature the names ending in *-oides* are regarded as feminine (Recommendation 75A(4)) while in the International Code of Zoological Nomenclature such names are cited as examples of masculine (Art. 30a(ii)). Blüthgen, 1925, accepted the gender as feminine following Schenck's original view, and this gender was used by all subsequent authors. If we change the gender to masculine according to the Zoological Code, the endings of 135 available specific names in *Nomioides* must be changed. However, we consider that an exception from the Code is not warranted.

7. *Nomioides* is accepted as distinct by all modern workers. It includes 65 species which are distributed in all the Old World except the northern part of the Palaearctic.

8. In accordance with the above, the International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to set aside all fixations of type species for the nominal genus *Nomioides* Schenck made prior to the ruling now asked for, and having done so, to designate *Apis minutissima* Rossi, 1790, as type species of this genus;

(2) to place the generic name *Nomioides* Schenck, 1866 (gender: masculine), type species by designation under the plenary powers in 1 above, *Apis minutissima* Rossi, 1790, on the Official List of Generic Names in Zoology;

(3) to place the specific name *minutissima* Rossi, 1790 as published in the binomen *Apis minutissima* (specific name of type species of *Nomioides* Schenck, 1866) on the Official List of Specific Names in Zoology.

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HANDLIRSCH, A., 1888. Die Bienengattung *Nomioides* Schenck. *Verh. zool.-bot. Ges. Wien*, vol. 38, pp. 395–405.

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——1866. Verzeichniss der nassauischen Hymenoptera Aculeata mit Hinzufügung der übrigen deutschen Arten. *Berlin entomol. Zeitschr.* vol. 10, pp. 317–369.

CORRECTIONS TO DATA OF THREE FAMILY-GROUP NAMES OF BUTTERFLIES ON THE OFFICIAL LIST (INSECTA, LEPIDOPTERA). (Z.N.(S.) 2187.

By C.F. Cowan (*4 Thornfield Terrace, Grange-over Sands, Cumbria, LA11 7DR, England*)

By Direction 99, published 16th May, 1958, nine butterfly Family-Group names were placed on the *Official List of Family-Group Names in Zoology* with name numbers 225–233.

2. Names 226, 230, and 232, respectively SATYRIDAE, DANAIDAE and NYMPHALIDAE, are correctly listed.

3. Names 225, MORPHIDAE, 227, COLIADINAE and 233, PAPILIONIDAE have already been the subjects of requests (Cases Z.N.(S.) 2201, 2186 and 2245 respectively).

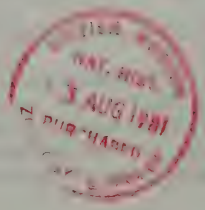
4. Meanwhile the following minor facts are brought to notice regarding the entries for the remaining three names:

No. 228 'ARGYNNIDAE Duponchel, 1844, *Cat. Méth.* . . . p. 2'. This date and reference repeats Duponchel's earlier valid proposal of this name:
ARGYNNIDAE Duponchel, [1835] (in Godart, J.B.) *Hist. nat. Lép. Pap. France*, Suppl. vol. 1(livr. 23), pp. 394, 395.

No. 229 'APATURIDAE Boisduval, 1840. *Gén. Ind. méth. Europ. Lép.* etc.' Correct, but the title was in Latin (*Genera et Index methodicus Europaeorum Lepidopterorum*), and the accents should be deleted.

No. 231 'LIMENITIDINAE Butler, 1869, *Cat. diurn. Lep. Fabricius*, p. 57.' As Sherborn, 1934 (*Ann. Mag. nat. Hist.* (10) 13: 311) showed, the date of publication of this work (prefaced on 3 Dec. 1869) was [12 February 1870].

5. It is recommended that the *Official List of Family-Group Names in Zoology* be corrected in accordance with paragraph 4 above.



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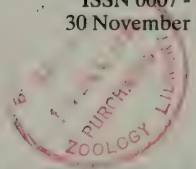

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 38, part 4 (pp. 229–318), T.P., I–VIII 30 November, 1981

NOTICES

(a) *Date of commencement of voting.* In normal circumstances the Commission may start to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the plenary powers.* The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* (that marked with an asterisk involves the application of Articles 23a-b and 79b):

(1) *Eremias* Wiegmann, 1834 (Reptilia, Lacertilia), proposed designation of a type species by use of the plenary powers. Z.N.(S.) 1172. The Secretary.

(2) *Typus* Sellards, 1909 (Insecta, Protodonata), proposed conservation under plenary powers. Z.N.(S.) 2359. F.M. Carpenter & P. Whalley.

(3) *Capsus ater* Jakovlev, 1889 and *Lygaeus quadripunctatus* Fabricius, 1794 (Insecta, Hemiptera, Heteroptera), proposed nomenclatural validation. Z.N.(S.) 2148. I.M. Kerzhner.

*(4) *Byrrhus semistriatus* Fabricius, 1794 (Insecta, Coleoptera, Byrrhidae), proposed conservation. Z.N.(S.) 2317. M. Mroczkowski.

(5) *Aeolidiella* Bergh, 1867 (Gastropoda, Opisthobranchia), proposals to clarify the type species of the genus. Z.N.(S.) 1986. G.H. Brown.

(6) *Alpheus lottini* Guérin, 1829 (Crustacea, Decapoda), proposed conservation. Z.N.(S.) 2370. A.R. & D.M. Banner.

(c) *Receipt of new applications.* The following new applications have been received since the publication of vol. 38(3) on 30 July 1981 (those marked with an asterisk involve the application of Articles 23a-b and 79b.):

(1) *Anthalia* Zetterstedt, 1838 (Diptera, EMPIDIDAE), proposed designation of type species. Z.N.(S.) 2380. M. Chvála & K.G.V. Smith.

(2) Proposal to regulate the names of taxa above the family

group. Z.N.(S.) 2381. A. Rasnitsyn.

(3) *Leptobrachium parvum* Boulenger, 1893 (Amphibia, Anura), proposed conservation. Z.N.(S.) 2382. A. Dubois.

(4) *Hyla reinwardtii* Schlegel, 1840 (?) (Amphibia, Anura), proposed conservation. Z.N.(S.) 2383. A. Dubois.

(5) *Nymphula* Schrank, 1802 (Insecta, Lepidoptera), proposed designation of type species. Z.N.(S.) 2384. D.S. Fletcher & I.W.B. Nye.

(6) *Paludestrina* d'Orbigny, 1840 (Mollusca, Gastropoda), proposed conservation. Z.N.(S.) 2385. N.J. Cazzaniga.

(7) "Onomatophore", possible use of, in the Code. Z.N.(S.) 2386. The Secretary.

*(8) *Mayorella* Schaeffer, 1926 (Rhizopoda, Amoebida), proposed conservation. Z.N.(S.) 2387. F.C. Page.

(9) Generic names, proposed standard procedure for determining gender. Z.N.(S.) 2388. G.C. Steyskal.

*(10) *Myzus festucae* Theobald, 1917 (Insecta, Aphidoidea), proposed conservation under the plenary powers. Z.N.(S.) 2389. H.L.G. Stroyan.

(11) *Guignotus* Guignot, 1945 (Insecta, Coleoptera), proposed conservation. Z.N.(S.) 2391. O. Biström.

(12) *Cythere oblonga* Brady, 1866; *C. pavonia* Brady, 1866 and *C. crispata* Brady, 1868 (Crustacea, Ostracoda), proposed validation of lectotypes. Z.N.(S.) 2392. J. Athersuch.

(13) *Atractocera latipes* Meigen, 1804 (Insecta, Diptera, SIMULIIDAE), proposed neotype designation. Z.N.(S.) 2393. I.A. Rubtsov.

*(14) *Simulium austeni* Edwards, 1915; *S. ferruginea* Wahlberg, 1844 (Insecta, Diptera), proposed conservation. Z.N.(S.) 2394. I.A. Rubtsov.

(15) *Agromyza* Fallén, 1810 (Insecta, Diptera), proposed designation of type species. Z.N.(S.) 2395. G.C. Steyskal and K.A. Spencer.

(16) *Napomyza* Westwood, 1840 (Insecta, Diptera), proposed conservation. Z.N.(S.) 2396. G.C. Steyskal and K.A. Spencer.

SPECIAL ANNOUNCEMENTS

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

We announce with great regret the death of Dr G.F. de Witte, and also the resignation of Dr N.E. Hickin, to whom we

express our thanks for his many years of service on the Trust.

We are pleased to announce the appointments to the Trust of Professor Barry Cox (*King's College, University of London*) and Dr E.P.F. Rose, T.D. (*Bedford College, University of London*).

SIZE AND PRICE OF BULLETIN

The number of New Applications and Comments already in proof awaiting publication remains substantial and a number of Opinions are also ready for printing. We shall therefore try to maintain the *Bulletin* at its present size, as enlarged by 12 pages for each of the four parts of Volume 38 (1981), throughout 1982. Despite ever rising costs, the Trust is glad to announce that the price of Volume 39, for 1982, will be held at the current 1981 price of £40 per volume of four parts.

PUBLICITY FOR THE WORK OF THE COMMISSION

On 23 October, 1981 the Secretary of the Commission, Mr R.V. Melville, addressed the Cambridge College of Arts and Technology on the work of the Commission. His theme was "Zoological Nomenclature: its importance to the non-taxonomist".

FINANCIAL SUPPORT

The Finance Report for 1980 published in this present issue of the *Bulletin* (page 233) shows that the Trust desperately needs additional funds if the work of the Commission is to continue on even its present scale. We renew our appeal (*Bulletin*, volume 38, part 3, page 155) to the generosity of all readers and indeed of all zoologists and others who stand to benefit from the Commission's work.

In the meantime, we acknowledge with grateful thanks the following donations, received since the publication of volume 38, part 3 of the *Bulletin* on 30 July, 1981:

> The Charitable Trust Committee of the British National Oil Corporation; Professor C.D. Michener (University of Kansas, U.S.A.); Professor S.J. Gould (Museum of Comparative Zoology, Harvard, U.S.A.); Dr D.F. Waterhouse (CSIRO, Department of Entomology, Canberra, Australia).

NOMINATIONS TO FILL COMMISSIONER VACANCIES

In addition to the announcement made in the *Bulletin*, volume 38, part 3, page 154, a notice was sent through the good offices of the Secretariat of the International Union of Biological Sciences to all the national adhering bodies of the I.U.B.S. about the vacancies on the Commission and inviting nominations to fill them. We have so far received nine nominations.

XXI GENERAL ASSEMBLY OF THE INTERNATIONAL UNION OF BIOLOGICAL SCIENCES: 22–28 AUGUST, 1982

Readers of the *Bulletin* know of the forthcoming General Assembly of the I.U.B.S. at Ottawa in 1982. The Section on Zoological Nomenclature of the Division of Zoology of I.U.B.S. will welcome the participation of local zoologists interested in nomenclature. We shall ask the local organizers of the Assembly to notify their colleagues of this and to invite them to apply to Dr Harold Cogger, Australian Museum, Sydney 2000, N.S.W., Australia (Secretary of the Division of Zoology) for recognition as members of the Section.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
4 November 1981

FINANCIAL REPORT FOR 1980

The sales of the International Code, the Bulletin of Zoological Nomenclature, Opinions and Official Lists amounted to £10,447 during 1980 (£8,924 in 1979). The printing costs of the Bulletin and distribution of the publications were £4,002 (£4,422) and the supporting services and administration £8,634 (£10,404).

As the zoologist appointed last year to assist part-time was not employed after February 1980 through lack of funds, expenditure on the salaries was less in 1980. However, towards the end of 1980, the work increased generally, especially that on raising money for the Trust. As a result it was necessary to engage a part-time employee to help with the production of the Bulletin which is the visible link between the Commission and zoologists all over the world and, as such, plays a vital role in the life of the Commission.

The working deficit for the year was £2,222 (£5,937) covered by Bank deposit interest of £1,555 (£673) and donations from member countries of the International Union of Biological Sciences amounting to £1,330 (£2,334). Grants from H.M. Government made by the Advisory Board for the Research Councils (U.K.) via the Royal Society amounted to £5,000 and from the International Union of Biological Sciences, £4,281.

This year ended with a surplus of £2,942 (£2,070) giving revenue reserves of £10,767 (£7,825). Provision for the publication of the 3rd edition of the International Code of Zoological Nomenclature was made by the setting up of a special account containing a specific donation of £5,000 from a member of the Trust and £7,000 transferred from the revenue reserve.

It should be noted that the annual grant from the U.K. Government through the Royal Society will come to an end in 1981 and that from IUBS may cease in 1982.

Cost free accommodation for the Trust's and the Commission's offices and the services of the members of the Secretariat, which are remunerated at nominal rates all help the Trust at this crucial time to keep the work of the Commission going. However, it cannot be stressed too strongly that the Commission's work can no longer be funded in this unrealistic way. A target of at least £50,000 a year has been set to finance the Commission's work. To enable it to develop its services more fully would require an additional £15,000 a year.

The appended accounts and balance sheet were adopted at the Annual General Meeting of the Trust held on 2nd June, 1981.

F.G.W. JONES
Managing Director and Secretary, International Trust for Zoological Nomenclature.

22 July, 1981

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE
BALANCE SHEET AS AT 31st DECEMBER, 1980

1979				
		FIXED ASSETS		
		Office Equipment at cost	800.42	
		Less: Accumulated Depreciation	509.23	
324				291.19
		CURRENT ASSETS		
4,877		Amounts due from Sales	4,177.63	
25		Income and other Taxes Recoverable	117.61	
5,928		Cash at Bank and in Hand (Note 2)	22,106.03	
	10,830			26,401.27
	11,154			26,692.46
		CURRENT LIABILITIES		
2,157		Sundry Creditors	1,449.05	
1,172		Subscriptions received in Advance	2,475.98	
	3,329			3,925.03
	£7,825			£22,767.43
		ACCUMULATED FUNDS		
		REVENUE RESERVE		
	5,755	Balance at 31st December, 1979		7,825.05
	2,070	Surplus for 1980		2,942.38
	7,825			10,767.43
	–	SPECIFIC PROVISION (Note 2)		12,000.00
	£7,825			£22,767.43

NOTES: 1. The Stock of Publications has not been valued.
2. The provision made for the printing of the 3rd Edition of the International Code of Zoological Nomenclature, consists of £5,000 received as a specific donation and £7,000 allocated from the funds

	377	SALE OF PUBLICATIONS		
	8,503	International Code		273.93
	0	Bulletin of Zoological Nomenclature		9,858.12
	44	Opinions		315.30
		Official Lists		0.00
	8,924			10,447.35
	7,335	DONATIONS		10,609.94
	673	BANK DEPOSIT INTEREST		1,554.50
	16,932			22,611.79
		Less: ADMINISTRATION EXPENSES		
7,890		Salaries and National Insurance Contributions	6,215.99	
2,439		Office Expenses	2,318.61	
75		Audit Fee	100.00	
10,404			8,634.60	
4,422		Printing and Distribution of Publications	4,002.46	
36		Depreciation of Office Equipment	32.35	
	14,862			12,669.41
	2,070			9,942.38
	–	*Less:* PROVISION (Note 2)		7,000.00
	£2,070	SURPLUS FOR THE YEAR carried to BALANCE SHEET		£2,942.38

REPORT OF THE AUDITORS

In our opinion the above Balance Sheet and annexed Income and Expenditure Account give a true and fair view of the state of the Company's affairs as at the 31st December, 1980 and of the operating Surplus for the year ended on that date and comply with the Companies Acts, 1948 to 1980.

3,Great James Street, Bedford Row, London, WC1N 3DH

9th June, 1981

MORLEY, GRAYRIGGE & Co.
Chartered Accountants

COMMENTS ON THE PROPOSED SUPPRESSION OF RAFINESQUE, 1822, "ON THE TURTLES OF THE UNITED STATES". Z.N.(S.) 2289

(see vol. 37, pp. 53–56)

(i) by L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

So far as I can see, only *Trionyx nasica* (of which an objective character, viz., 'the weight of fifty pounds' is given) and *Monoclida kentukensis* (of which a good description is provided) are available names. The other ten names are nomina nuda, as, according to Article 16b(i), a vernacular name does not constitute an indication. It will thus be sufficient to suppress only the name *Trionyx nasica*. The generic name *Monoclida* is a junior synonym of *Terrapene* Merrem, 1820, and does not do any harm, and likewise the specific name *kentukensis* is a junior synonym of *carolina* Linnaeus, 1758.

(ii) reply by H.M. Smith

The Code as at present constituted, Art. 16b(i), does indeed eliminate a vernacular name as an indication, in the sense of Art. 12. The same provision is maintained in the proposed revision of the Code. Hence, only *Monoclida, M. kentukensis* and *Trionyx nasica*, of the names used in Rafinesque's work, can be regarded as occupied as of that work since all others were accompanied only by vernacular names. Furthermore, of those three names, only *T. nasica* is a senior synonym of a currently accepted name, *T. spiniferus* (Le Sueur, 1827); of the other two, *Monoclida* is a synonym of *Terrapene* Merrem, 1820, and *M. kentukensis* is a synonym of *T. carolina carolina* Linnaeus, 1758) and neither is likely to cause confusion. Therefore suppression only of *T. nasica* would suffice to eliminate the actual nomenclatural confusion that would result from application of the Law of Priority to Rafinesque's 1822 work.

The view has long been expounded by one of us (H.M.S.), however, that when either the scientific or the vernacular name provides descriptive information (i.e. not simply locality, geological horizon, host, specimen number or label, or synonymic allocation as cited in Art. 16b), the requirement for an 'indication' in the sense of Art. 12 is met.

Should that view ever be adopted in the Code, it would be useful for Rafinesque's entire work of 1822, not simply the name *T. nasica*, to have been suppressed. Otherwise the latter option would be the simplest to effect nomenclatural stability.

(iii) by A.F. Stimson (*British Museum, Natural History*)

It is clear that *Trionyx nasica* should be suppressed, either by suppressing that name alone, or by suppressing the whole of Rafinesque's 1822 paper.

Which course is taken must depend on whether or not the other names are considered nomina nuda. I agree with Hobart Smith that such a term as 'Dwarf soft-shelled turtle', while evidently a vernacular, is also sufficiently descriptive to identify the species and may be regarded as a brief description.

Art. 12 requires that to be available a name must be accompanied by a description, definition or indication. Art. 16b(i) states that a vernacular name does

not constitute an indication. Nowhere does it say that a vernacular name cannot constitute a description. Thus I support the original proposal to suppress Rafinesque's 1822 work.

COMMENT ON PROPOSED CONSERVATION OF *ARTEMIA* LEACH, 1819 (CRUSTACEA, BRANCHIOPODA). Z.N.(S.) 1984

see vol. 37: 223–227

By L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

I will gladly support Dr Lochhead's application to conserve the generic name *Artemia* Leach, 1819. There are, however, two minor points that I want to make.

1. Mathews (1911, *Novitates Zoologicae*, vol. 18(1), p. 18) noted that the four volumes of the first edition of Cuvier's *Règne Animal* were published 7 December 1816, not in 1817 as mentioned on the title page. The date of *Artemisia* Latreille is thus 1816 (in Cuvier, *Règne Anim.* (ed. 1), vol. 3, p. 68).

2. The first type designation for the genus *Artemia* Leach that I know of is by Lucas (1840, *Histoire naturelle des Crustacés, des Arachnides et des Myriapodes*, p. 289), where under *Artemia salina* the author remarked: "L'espèce qui a servi de type à ce genre est un petit Crustacé....." The same remark can be found on the same page in the 1842 and 1851 issues of the work.

[Editor's note. Dr Lochhead has written to say he is grateful for these comments: the corrections will be taken into account when the voting paper is issued.]

COMMENT ON A REQUEST FOR A CHANGE IN ARTICLE 40 OF THE CODE. Z.N.(S.)2250

By Walter O. Cernohorsky (*Auckland Institute and Museum, Private Bag, Auckland, 1., New Zealand*)

I fully support Dr. Pettibone's application (*Bull. zool. Nom.* vol. 38, p.7) for a change in Article 40 of the Code. This article does not serve any useful purpose other than to cloud the issue and lose sight of the true relationship and meaning of the family-group name in cases where the type genus has disappeared in synonymy.

Article 40 is not only a source of confusion in Polychaeta but is also irritatingly present in Mollusca. An example is the current family-group name CYLINDROMITRINAE Cossmann, 1899, which is protected under Article 40 and must be given chronological priority over PTERYGIINAE Kuroda, 1934, even though its type genus *Cylindromitra* Fischer, 1884, has long ago disappeared in the synonymy of *Pterygia* Röding, 1798.

Article 40 contributes very little to nomenclatural stability and should be either emended or even deleted from the Code.

THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE
RESULT OF SECOND VOTE ON PROPOSALS ON PARATAXA. Z.N.(S.)1973

By the Secretary, International Commission on Zoological Nomenclature

As already reported in *Bull. zool. Nom.* vol. 38, pp. 30–48, the proposals concerning names for ichnotaxa and parataxa were sent for voting in V.P.(80)18. That voting paper contained four points, of which Point 4 proposed that names given to parataxa should not compete with names given to nominal taxa in the Animal Kingdom. That proposal received an affirmative majority smaller than a two-thirds majority. Accordingly, under Bylaw 25, it was sent for a second vote in V.P.(80)39 on 24 November 1980. At the close of the voting period on 24 February 1981, the state of the voting was as follows:

Affirmative Votes — eleven (11) received in the following order: Melville, Willink, Mroczkowski, Heppell, Habe, Corliss, Welch, Tortonese, Brinck, Binder, Bernardi

Negative Votes — five (5) received in the following order: Holthuis, Trjapitzin, Alvarado, Starobogatov and Nye

Hahn, Dupuis, Lehtinen, Sabrosky and Bayer abstained. No vote was returned by Kraus. Halvorsen and Vokes were on leave of absence.

The result of the vote on V.P.(80)39 is that the proposal again received a majority less than a two-thirds majority. Under Bylaw 36, the proposal is therefore rejected.

OPINION 1188
APHIS PYRI BOYER DE FONSCOLOMBE, 1841 (INSECTA: HEMIPTERA) CONSERVED

RULING.— (1) Under the plenary powers, the specific name *pyri* Vallot, 1802, as published in the binomen *Aphis pyri*, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) It is hereby ruled that the work by Kittel, 1827, Sur les pucerons, suivi de la description de quelques espèces nouvelles, *Mém. Soc. linn. Paris,* vol. 5, pp. 133–155 is not available for the purposes of zoological nomenclature by reason of the fact that the author did not consistently apply the principles of binominal nomenclature therein.

(3) The specific name *pyri* Boyer de Fonscolombe, 1841, as published in the binomen *Aphis pyri*, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2758.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *pyri* Vallot, 1802, as published in the binomen *Aphis pyri*, and as suppressed under the plenary powers in (1) above (Name Number 1078);

(b) the following names published in combination with the generic name *Aphis* by Kittel, 1827:
aquilegiae nigra (Name Number 1079)
aquilegiae flava (Name Number 1080)
sonchi pruinosa (Name Number 1081)
sonchi viridifurcata (Name Number 1082)
hyosciami (Name Number 1083)
pyri (Name Number 1084)
solani (Name Number 1085)
piperis (Name Number 1086)
epilobii (Name Number 1087)
scirpi (Name Number 1088)
morae (Name Number 1089)
lavaterae (Name Number 1090)
salicis minor (Name Number 1091).

(5) The title of the following work is hereby placed on the Official Index of Rejected and Invalid Works in Zoology: Kittel, 1827, Sur les pucerons, suivi de la description de quelques espèces nouvelles, *Mém. Soc. linn. Paris,* vol. 5, pp. 133–155 (Title Number 85).

HISTORY OF THE CASE Z.N.(S.)2062

An application for the conservation of *Aphis pyri* Boyer de Fonscolombe, 1841, was first received from Dr V.F. Eastop (*British Museum (Natural History), London*) on 12 March 1974. It was sent to the printer on 5 April 1974 and published on 20 September 1974 in *Bull. zool. Nom.* vol. 31, pp. 164–166. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials and to seven entomological serials.

The application was supported by Dr. Louise M. Russell (*U.S. Department of Agriculture, Beltsville, Maryland 20705, USA*) and by Dr. Hille Ris Lambers (*Bladluisonderzoek TNO, Bennekom, Netherlands*), who pointed out that he had rejected Kittel's names in 1939 (*Temminckia*, vol. 4, p. 2), as also did Doncaster in 1961 (*Francis Walker's Aphids*, London) because Kittel was not consistently binominal.

DECISION OF THE COMMISSION

On 27 September 1978 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (78)23 for or against the proposals set out in *Bull. zool. Nom.* vol. 31, pp. 165–166. At the close of the voting period on 27 December 1978, the state of the voting was as follows:

Affirmative Votes — twenty-two (22) received in the following order: Melville, Holthuis, Brinck, Eisenmann, Alvarado, Mroczkowski, Vokes, Willink, Habe, Tortonese, Binder, Corliss, Welch, Heppell, Ride, Bayer, Cogger, Kraus, Nye, Sabrosky, Dupuis, Bernardi

Negative Votes — none (0)

A late affirmative vote was returned by Starobogatov.

The following comments were sent in by members of the Commission with their voting papers:

Mroczkowski: 'There is no need to place Kittel's 1827 names on the Official Index of Rejected and Invalid Specific Names if the whole work of Kittel, 1827, is placed on the Official Index of Rejected and Invalid Works.'

Heppell: 'I believe proposal 4b is unnecessary if proposals 2 and 5 are accepted. While I accept that it is desirable in the application to indicate which names are involved when the suppression of a work is asked for, I think it clutters the Official Index quite unnecessarily to add such included names individually.'

Sabrosky: 'Re Kittel (1827), the mere fact that "the author did not consistently use binominals" would not necessarily make the

work unavailable: the apparent polynominals might be acceptable compounds (Article 26a). The application does not make their derivation clear. Moreover, one might argue that Kittel's names 1 through 4, and no. 13, were equivalent to saying "var. *nigra*", "var. *flava*", etc., as has apparently been done in considering Linnaeus (1758) to be consistently binominal! However, most important, the Kittel names were considered by the Commission in Opinion 50 (published 1912), and the Commission then viewed the polynominal specific names as unavailable, although the Summary mentioned only *Aphis aquilegiae flava*, the subject of the application submitted to it. To confirm this history, I vote for the proposals regarding Kittel's work, but feel obliged to comment that an application which concerns an entire work should more adequately examine the work itself and justify the case.'

[*Note by the Secretary:* In view of Dr. Sabrosky's comment, I examined Kittel's work and found that that author had listed the Latin and French names in two columns, e.g.:

p. 148	*Aphis aquilegiae nigra*	Puceron noir de l'ancolie
	Aphis aquilegiae flava	Puceron jaune de l'ancolie
p. 149	*Aphis sonchi pruinosa*	Puceron à duvet du laiteron
	Aphis sonchi viridifurca [sic]	Puceron vert-brun du laiteron
p. 154	*Aphis salicis minor*	Petit puceron du saule

This shows conclusively that the names in question are acceptable neither as trinominals nor as compound names. R.V.M.]

ORIGINAL REFERENCES

The following are the original references for names placed on an Official List and an Official Index by the ruling given in the present Opinion:

pyri, Aphis, Vallot, 1802, *Concordance systématique...à l'ouvrage de Réaumur intitulé: Mémoires pour servir à l'histoire des Insectes* (Paris), p. 94

pyri, Aphis, Boyer de Fonscolombe, 1841, *Ann. Soc. entomol. France,* vol. 10, pp. 189–190

The thirteen names listed in paragraph 4b of the ruling: Kittel, 1827, *Mém. Soc. linn. Paris,* vol. 5, pp. 133–155.

The following is the title of the work placed on the Official Index of Rejected and Invalid Works in Zoology by the present ruling: Kittel, M.B., 1827, Sur les pucerons, suivi de la description de quelques espèces nouvelles, *Mém. Soc. linn. Paris,* vol. 5 (1826), pp. 133–155.

CERTIFICATE

I hereby certify that the votes cast on V.P.(78)23 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1188.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
20 February 1981

OPINION 1189
CIRCINAE IN AVES AND MOLLUSCA: REMOVAL OF THE HOMONYMY

RULING.— (1) The requests to use the plenary powers to vary the stem, for the purposes of Article 29, of either the generic name *Circus* Lacepède, 1799 (Aves), or (b) the generic name *Circe* Schumacher, 1817 (Mollusca) are hereby refused.

(2) Under the plenary powers it is hereby ruled that the generic name *Circus* was first made available by Lacepède, 1799, regardless of any prior publication by Bechstein.

(3) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Circus* Lacepède, 1799 (gender: masculine), type species, by subsequent designation by Lesson, 1828, *Falco aeruginosus* Linnaeus, 1758 (Name Number 2131);

(b) *Circe* Schumacher, 1817 (gender: feminine), type species, by monotypy, *Circe violacea* Schumacher, 1817 (Name Number 2132);

(c) *Gafrarium* Röding, 1798 (gender: neuter), type species, by subsequent designation by Dall, 1902, *Venus pectinata* Linnaeus, 1758 (Name Number 2133).

(4) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *aeruginosus* Linnaeus, 1758, as published in the binomen *Falco aeruginosus* (specific name of type species of *Circus* Lacepède, 1799) (Name Number 2759);

(b) *scripta* Linnaeus, 1758, as published in the binomen *Venus scripta* (the valid name, at the time of this ruling, for the type species of *Circe* Schumacher, 1817) (Name Number 2760);

(c) *pectinata* Linnaeus, 1758, as published in the binomen *Venus pectinata* (specific name of type species of *Gafrarium* Röding, 1798) (Name Number 2761)

(5) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) CIRCINAE Sundevall, 1836 (Aves), type genus *Circus* Lacepède, 1799 (Name Number 515);

(b) GAFRARIINAE Korobkov, 1954 (Mollusca), type genus *Gafrarium* Schumacher, 1817 (Name Number 516).

(6) The following family-group name is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Number specified: CIRCINAE Dall, 1895 (Name Number 486).

HISTORY OF THE CASE Z.N.(S)2112

An application designed to remove the homonymy between the subfamily names CIRCINAE in Aves and CIRCINAE in Mollusca was first received from Dr. Barry Roth (*California Academy of Sciences*) on 3 February 1975. After an exchange of correspondence it was sent to the printer on 14 October 1975 and published on 30 January 1976 in *Bull. zool. Nom.* vol. 32, pp. 270–273. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, five general serials, ten ornithological and four malacological serials.

Comments by Dr. E. Eisenmann, Mr. R.K. Brooke (to whom Dr. Roth replied) and Mr. D. Heppell were published in *Bull. zool. Nom.* vol. 33, pp. 143–145. Whereas Dr. Roth, in his original application, and Mr. Brooke proposed that the stem of one or other of the generic names involved be changed, Mr. Heppell proposed that the Law of Homonymy be allowed to operate and that the subfamily name GAFRARIINAE Korobkov, 1954 (generally considered a junior synonym of CIRCINAE Dall, 1895) be adopted as a replacement name.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month rule on Voting Paper V.P.(80)25, either (A) for changing CIRCINAE (Mollusca) to CIRCEINAE, or (B) for changing CIRCINAE (Aves) to CIRCOINAE, or (C) for accepting GAFRARIINAE in place of CIRCINAE (Mollusca). It was pointed out that choices A and B would both require the use of the plenary powers, but that choice C would not. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Choice A — five (5): Holthuis, Mroczkowski, Hahn, Habe, Nye

Choice B — three (3): Willink, Corliss, Ride

Choice C — fourteen (14): Melville, Starobogatov, Trjapitzin, Lehtinen, Brinck, Tortonese, Dupuis, Welch,

Alvarado, Cogger, Sabrosky, Heppell, Bayer, Halvorsen

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

The following comments were sent in by members of the Commission with their voting papers:

Holthuis: 'To justify my voting on this case I want to make the following remarks:

'(1) (concerning Alternative B). The change from CIRCINAE (for *Circe*) to CIRCEINAE is less drastic and shows the relation to the type genus better than does that of CIRCINAE (for *Circus*) to CIRCOINAE.

'(2) (concerning Alternative B). The fact that some authors at present synonymise CIRCINAE (for *Circus*) with ACCIPITRINAE does not mean that this will always be so: usually a period in which "lumping" is fashionable will be followed by one in which the trend will be to splitting. It is almost arrogant to believe that we have now achieved the definitive taxonomy of birds.

'(3) (concerning Alternative C). CIRCINAE Dall, 1895 (for *Circe*) actually is only an accidental homonym of CIRCINAE Sundevall, 1836, caused, not by nomenclature, but by the rules of grammar. As long as *Circe* is an available name, we cannot reject the family-group name based on it (if *Circe* were the only genus in a monotypical family, the name of the family would have to be based on the name *Circe*). The only alternative is to change its spelling or that of its homonym. The name CIRC(E)INAE Dall, 1895, in whatever spelling, is a senior synonym of GAFRARIINAE Korobkov, 1954, and the latter name cannot be used except by zoologists who think that *Circe* and *Gafrarium* belong to two distinct family-group taxa.'

Hahn: 'I vote for Alternative A. As far as I can see, and in contrast to the opinion of Mr. Brooke, the avian family-group name CIRCINAE is still in use. I have found it in Grzimek's *Tierleben*, vol. 7, p. 502, 1970, as well as in the German edition of O.L. Austin's *Die Vögel der Welt*, p. 81, 1963.'

Ride: 'CIRCINAE is well known in Mollusca and is in current use. I see no advantage to users of the molluscan literature in dispensing with it merely to avoid having to use the plenary powers. Some amendments should be made to the proposal to cover Eisenmann's point on Bechstein, and I ask for these to be taken care of by the Secretary.'

Bayer: 'As a modern revision treats *Circe* Schumacher, 1817, as a synonym of *Gafrarium* Röding, 1798, it would seem preferable to let the Law of Homonymy apply and use GAFRARIINAE for the molluscan subfamily, thus avoiding a case in which a family-group name is based on a generic name not in use.'

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

aeruginosus, Falco, Linnaeus, 1758, *Syst. Nat.*, ed. 10, p. 91

Circe Schumacher, 1817, *Essai vers test.*, pp. 50, 152

CIRCINAE Sundevall, 1836, *K. Vetenskaps-Akad. Handl.* for 1835, p. 113

CIRCINAE Dall, 1895, *Trans. Wagner free Inst. Sci. Philadelphia,* vol. 3, p. 552

Circus Lacepède, 1799, *Tableau des Oiseaux,* p. 4

GAFRARIINAE Korobkov, 1954, *Spravochnik i metodicheskoe rukovodstvo po Tretichnim Mollyuskam*, p. 166

Gafrarium Röding, 1798, *Museum Boltenianum*, p. 176

pectinata, Venus, Linnaeus, 1758, *Syst. Nat.* ed. 10, p. 689

scripta, Venus, Linnaeus, 1758, *Syst. Nat.* ed. 10, p. 689

The following are the original references to designations of type species accepted in the ruling given in the present Opinion: of *Falco aeruginosus* as type species of *Circus* Lacepède, 1799, by Lesson, 1828, *Man. Ornithol.*, vol. 1, p. 105; of *Venus pectinata* Linnaeus, 1758, as type species of *Circe* Schumacher, 1817, by Dall, W.H., 1895, *Proc. U.S. nat. Mus.*, vol. 26, p. 350.

CERTIFICATE

I hereby certify that the votes cast on Voting Paper (1980)25 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1189.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
10 March 1981

OPINION 1190
PTEROIS ZEBRA CUVIER *in* CUVIER & VALENCIENNES, 1829 (PISCES, SCORPAENIDAE) PLACED ON THE OFFICIAL LIST

RULING.— (1) Under the plenary powers the specific name *zebra* Quoy & Gaimard, 1825, as published in the binomen *Pterois zebra*, and all uses of that name prior to its publication by Cuvier *in* Cuvier & Valenciennes, 1829, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The specific name *zebra* Cuvier *in* Cuvier & Valenciennes, 1829, as published in the binomen *Pterois zebra*, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2762.

(3) The specific name *zebra* Quoy & Gaimard, 1825, as published in the binomen *Pterois zebra*, and as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Names in Zoology with the Name Number 1092.

HISTORY OF THE CASE Z.N.(S.)2113

An application for the conservation of the name *Pterois zebra* Cuvier *in* Cuvier & Valenciennes, 1829, was first received from Dr. Øystein Frøiland (*University of Bergen, Norway*) on 20 January 1975. After an exchange of correspondence it was sent to the printer on 16 May 1975 and published on 30 January 1976 in *Bull. zool. Nom.* vol. 32, pp. 250–251. Public notice of the possible use of the plenary powers in the case was sent to the statutory serials and to five general and one ichthyological serial. No comments were received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule for or against the proposals published in *Bull. zool. Nom.* vol. 32, p. 251. At the close of the voting period on 5 December 1980, the state of the voting was as follows:

Affirmative Votes — twenty-two (22) received in the following order: Melville, Holthuis, Willink, Mroczkowski, Starobogatov, Trjapitzin, Lehtinen, Hahn, Brinck, Tortonese, Corliss, Dupuis, Habe, Ride, Welch, Alvarado, Cogger, Sabrosky, Heppell, Bayer, Halvorsen, Nye

Negative Votes — none (0)

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

The following comments were sent in by members of the Commission with their votes:

Holthuis: 'To paragraph 9(1) of the application should be added, between "*zebra*" and "for the purposes", "and all uses of this name before the publication of *Pterois zebra* by Cuvier *in* Cuvier & Valenciennes, 1829." '[This has been taken into account in drafting the present ruling. R.V.M.]

Dupuis: 'Je vote "pour" uniquement dans l'intérêt de la stabilité de la nomenclature, tant est une référence générale celle à Cuvier & Valenciennes, mais je regrette, en termes d'éthique, d'avoir à attribuer à ces auteurs un nom qu'ils ont pillé chez d'autres.'

ORIGINAL REFERENCES

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

zebra, Pterois, Quoy & Gaimard, 1825, *Voyage autour du monde ... sur les corvettes de S.M. "l'Uranie" et "la Physicienne" pendant les années 1817–1820*, Zoologie vol. 4, p. 329

zebra, Pterois, Cuvier *in* Cuvier & Valenciennes, 1829, *Histoire naturelle des poissons*, vol. 4, p. 269.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)26 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1190.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
13 March 1981

OPINION 1191
BERYTUS CONSIMILIS HORVÁTH, 1855 (HEMIPTERA, BERYTINIDAE): LECTOTYPE DESIGNATION CONFIRMED

RULING.— (1) The neotype designated by E. Wagner, 1966, for the nominal species *Berytus consimilis* Horváth, 1855, is hereby set aside.

(2) The lectotype designated by Péricart, 1976, for the above nominal species is hereby confirmed.

(3) The specific name *consimilis* Horváth, 1855, as published in the binomen *Berytus consimilis*, and as defined by reference to the lectotype designated by Péricart, 1976, is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2763.

HISTORY OF THE CASE Z.N.(S.)2118

An application for the replacement of the neotype designated for *Berytus consimilis* Horváth, 1855 by Wagner, 1966 by a lectotype was first received from Monsieur J. Péricart (*45 Montereau, France*) on 7 April 1975. It was sent to the printer on 16 May 1975 and published on 30 January 1976 in *Bull. zool. Nom.* vol. 32, pp. 255–256. No use of the plenary powers was involved. No comment was received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)27 for or against the proposals published in *Bull. zool. Nom.* vol. 32, p. 256. At the close of the voting period on 5 December 1980 the state of the voting was as follows:

Affirmative Votes — twenty (20) received in the following order: Melville, Holthuis, Willink, Mroczkowski, Starobogatov, Trjapitzin, Hahn, Brinck, Tortonese, Corliss, Dupuis, Habe, Welch, Alvarado, Cogger, Sabrosky, Heppell, Bayer, Halvorsen, Nye

Negative Vote: Lehtinen

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

The following comments were sent in by members of the Commission with their voting papers:

Lehtinen: 'In Hemipteran species, the informative value of male characters is generally much higher than that of female

characters. As the neotype comes from the same geographic region as the series of syntypes, there are no reasons to suppose that possible patterns of geographic variation of this species could later cause confusion. A topotypic neotype stated to be conspecific with the syntypes by the applicant cannot threaten nomenclatural stability.'

Ride: 'I vote against the proposal because it seems wiser to establish the taxonomy of the genus on Wagner's revision which, as the applicant has said, is based upon modern taxonomic criteria; and the neotype chosen by Wagner is undoubtedly conformable with the taxonomic concept established there. However, I vote on the assumption that the male genitalia are diagnostic of the genus (*sensu* Wagner) and that Wagner, in establishing the neotype, did so in conformity with Article 75a–c. I ask the Secretary to confirm these aspects. If Wagner did not fulfil the requirements of Article 75a–c, the Council should decide whether to seek action to validate the neotype under the plenary powers. If the male genitalia are not diagnostic and the female characters are, I ask for my vote to be disregarded.'

[Note by the Secretary: as requested by Dr. Ride, I examined Wagner's neotype designation. It was designated (a) in a revisory work in which the identities of closely similar species were studied, (b) not for its own sake, or as a matter of curatorial routine, or for a species whose name is not in general use, and (c) in a manner that satisfies the requirements of Article 75c. The neotype cannot, therefore, be invalidated on that score. I then consulted Dr. W.R. Dolling (*Natural History Museum, London*) on the question of which sex was the more diagnostic and he told me that the species could be recognised equally well from either sex. Under those circumstances, I decided to disregard Dr. Ride's vote. R.V.M.]

Sabrosky: 'In spite of the fact that the proposed lectotype would not be in the museum of the original series, I prefer that solution to help deter the unnecessary multiplication of neotypes when they are not really necessary.'

ORIGINAL REFERENCES

The following is the original reference for a name placed on an Official List by the ruling given in the present Opinion:

consimilis, Berytus, Horváth, 1855, *Rev. Entomol.* vol. 4, pp. 320–324.

The following is the original reference to a lectotype designation confirmed by the ruling given in the present Opinion: for *Berytus consimilis* Horváth, 1855 by Péricart, 1976, *Bull. zool. Nom.* vol. 32, pp. 255–256.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)27 were cast as set out above, that the proposal contained in that voting paper has been duly adopted, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1191.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
13 March 1981

OPINION 1192
LECANIUM ACUMINATUM SIGNORET, 1873 (INSECTA, HOMOPTERA, COCCIDAE): NEOTYPE DESIGNATED

RULING.— (1) Under the plenary powers, the neotype proposed by Ben-Dov, 1976, for the nominal species *Lecanium acuminatum* Signoret, 1873, is hereby confirmed.

(2) The generic name *Kilifia* de Lotto, 1965 (gender: feminine), type species, by original designation, *Lecanium acuminatum* Signoret, 1873, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2134.

(3) The specific name *acuminatum* Signoret, 1873, as published in the binomen *Lecanium acuminatum*, and as defined by reference to the neotype confirmed under the plenary powers in (1) above (specific name of type species of *Kilifia* de Lotto, 1965) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2764.

HISTORY OF THE CASE Z.N.(S.)2119

An enquiry as to the best procedure to be followed in securing the name *Lecanium acuminatum* Signoret, 1873, in its accepted sense was first received from Dr. Y. Ben-Dov (then of *Plant Protection Research Institute, Pretoria, R.S.A.*) on 19 March 1975. An application was then prepared and sent to the printer on 16 May 1975; it was published on 30 January 1976 in *Bull. zool. Nom.* vol. 32, pp. 257–260. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to five general and seven entomological serials. The application was supported by Dr. Douglass R. Miller, Dr. Louise M. Russell and Dr. S. Nakahara (*USDA, Beltsville, Maryland, U.S.A.*). No adverse comment was received. Dr. Holthuis observed that *Lecanium acuminatum* Signoret, 1873, was the type species of *Kilifia* de Lotto, 1965, by original designation, so that the applicant's request for its designation as such under the plenary powers was not required.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)28 for or against the proposals published in *Bull. zool. Nom.* vol. 32, pp. 259–260. At the close of the voting period on 5 December 1980, the state of the voting was as follows:

Affirmative Votes — twenty-one (21) received in the

following order: Melville, Holthuis, Willink, Mroczkowski, Brinck, Starobogatov, Trjapitzin, Lehtinen, Hahn, Tortonese, Corliss, Habe, Ride, Welch, Alvarado, Cogger, Sabrosky, Heppell, Halvorsen, Nye, Bayer

Negative Vote — Dupuis

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

Professor Dupuis commented 'Néotype = faux légal'.

Dr. Sabrosky commented 'Re the Holthuis comment, the author no doubt wished to be sure that the designation of *acuminatum* was in the sense of the neotype and not of *acuminatum* Signoret as a synonym of *hesperidum*'.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the ruling given in the present Opinion:

acuminatum, Lecanium, Signoret, 1873, *Ann. Soc. entomol. France* (5) vol. 3, p. 397, pl. 11, fig. 1

Kilifia de Lotto, 1965, *Bull. Brit. Mus. nat. Hist.* (Entomol.), vol. 16, p. 206.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)28 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1192.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
16 March 1981

OPINION 1193
CERATOPHYSELLA BÖRNER, 1932 (INSECTA, COLLEMBOLA) CONSERVED

RULING.— (1) Under the plenary powers, the generic name *Cystioceras* Börner *in* Schille, 1912, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Ceratophysella* Börner, 1932 (gender: *feminine),* type species, by monotypy, *Podura armata* Nicolet, [1842], is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2135.

(3) The specific name *armata* Nicolet, [1842], as published in the binomen *Podura armata* (specific name of type species of *Ceratophysella* Börner, 1932), is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2765.

(4) The generic name *Cystioceras* Börner *in* Schille, 1912, as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 2119.

HISTORY OF THE CASE Z.N.(S.)2120

An application for the conservation of the generic name *Ceratophysella* Börner, 1932 was first received from Dr. Peter Bellinger (*University of California, Northridge*) and Dr. Willem Ellis (University of Amsterdam) on 10 April 1975. It was sent to the printer on 16 May 1975 and published on 30 January 1976 in *Bull. zool. Nom.* vol. 32, pp. 274–276. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to five general and seven entomological serials. The application was supported by Dr. H. Janetschek (*Universität Innsbruck*) and Dr. J. Rusek (*Prague, Institute of Entomology*). No adverse comment was received.

DECISION OF THE COMMISSION

On 5 September 1980 the members of the Commission were invited to vote under the Three-Month Rule on V.P.(80)29 for or against the proposals set out in *Bull. zool. Nom.* vol. 32, p. 275. At the close of the voting period on 5 December 1980, the state of the voting was as follows:

Affirmative Votes — twenty-one (21), receiving in the following order: Melville, Holthuis, Willink, Mroczkowski, Brinck, Starobogatov, Trjapitzin, Lehtinen, Hahn, Tortonese, Corliss,

Habe, Ride, Welch, Alvarado, Cogger, Sabrosky, Heppell, Nye, Halvorsen, Bayer

Negative Vote: Dupuis

Vokes was on leave of absence. No votes were returned by Bernardi, Binder and Kraus.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

armata, Podura, Nicolet, [1842], *Neue Denkschr. allg. Schweiz. Gesellschaft,* vol. 6, p. 57

Ceratophysella Börner, 1932 *in* Brohmer, *Fauna von Deutschland*, 4th edit., p. 140

Cystioceras Börner *in* Schille, 1912, *Spraw. Komisji Fysiogr, Kraju,* vol. 46, pp. 126–127.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)29 were cast as set out above, that the request contained in that voting paper has been duly accepted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1193.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
16 March 1981

OPINION 1194
ESCHARA SPONGITES PALLAS, 1766 (BRYOZOA): NEOTYPE DESIGNATED

RULING.— (1) Under the plenary powers, all designations of a type specimen hitherto made for the nominal species *Eschara spongites* Pallas, 1766, are hereby set aside and the specimen so proposed by Hastings, 1974, is hereby confirmed as neotype of that species.

(2) The generic name *Stylopoma* Levinsen, 1909 (gender: neuter), type species, by subsequent designation by Canu & Bassler, 1909, *Eschara spongites* Pallas, 1766, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2136.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *spongites* Pallas, 1766, as published in the binomen *Eschara spongites* (specific name of type species of *Stylopoma* Levinsen, 1909) (Name Number 2766);

(b) *errata* Waters, 1878, as published in the binomen *Lepralia errata* (Name Number 2767).

HISTORY OF THE CASE Z.N.(S.)1826

An application to determine the identity of the type species of *Stylopoma* Levinsen, 1909 was first received from the late Dr. Anna B. Hastings on 6 March 1967. After an exchange of correspondence, a paper was sent to the printer on 4 October 1967 and published on 7 December 1967 in *Bull. zool. Nom.*, vol. 24, pp. 316–318. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials. Dr. Lemche objected to certain aspects of the case, and asked in particular that a description and illustration of the proposed neotype of *Eschara spongites* Pallas, 1766, be published in the *Bulletin*. He himself provided photographs of the specimen, which is in the Copenhagen Zoological Museum.

For a number of reasons, it was not possible to agree with Dr. Hastings on the presentation of the description and illustrations of the proposed neotype until 1973. Since so much time had elapsed since the publication of the original application, it was thought best to republish it, accompanied by the additional material, and this was sent to the printer on 24 October 1973 and published on 28 June 1974 in *Bull. zool. Nom.* vol. 30, pp. 177–181, pl. 1. Public notice of the possible use of the plenary powers was again given in the same part

of the *Bulletin* and to the statutory serials. No comment was received.

DECISION OF THE COMMISSION

On 22 November 1977 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1977)18 for or against the proposals published in *Bull. zool. Nom.* vol. 30, p. 179. At the close of the voting period on 22 February 1978 the state of the voting was as follows:

Affirmative Votes — fifteen (15) received in the following order: Melville, Holthuis, Alvarado, Vokes, Mroczkowski, Sabrosky, Tortonese, Welch, Corliss, Starobogatov, Cogger, Nye, Heppell, Ride, Bayer

Negative Votes: Eisenmann, Dupuis

Late affirmative votes were returned by Habe and Brinck. No voting paper were returned by Bernardi, Binder, Kraus and Willink.

The following comments were sent in by members of the Commission with their voting papers:

Eisenmann: 'It is by no means clear to me from the application that predominant current usage favours the use of *spongites* for the American species rather than for the Mediterranean species to which the name is technically applicable.'

Dupuis: 'Je refuse, ici comme ailleurs dans la plupart des cas, de désigner un néotype car cette opération est toujours en quelque nature une falsification des faits. Je constate, en outre, dans le cas particulier: (1) que la sélection d'un lectotype par Harmer est seul compatible avec la restriction antérieure (Recommandation 74A) de Pallas lui-même; (2) que la Commission aurait tort, en usant de ses pleins pouvoirs, de porter atteinte à la Recommandation 74A; (3) que la requête — même révisée — se présente dans une grande confusion chronologique et omet plusieurs références (p. ex. Hincks & Thornely); (4) que l'argument de l'alinéa 14 est zoologique et subjectif et non pas nomenclatorial et objectif.'

ORIGINAL REFERENCES

The following are the original references to names placed on Official Lists by the ruling given in the present Opinion:

errata, Lepralia, Waters, 1878, *Proc. Manchester lit. & philos. Soc.*, vol. 18, p. 11

spongites, Eschara, Pallas, 1766, *Elenchus Zoophytorum*, p. 45

Stylopoma Levinsen, 1909, *Morphological and systematic studies on the cheilostomatous Bryozoa* (Copenhagen), p. 324.

CERTIFICATE

I hereby certify that the votes cast on V.P.(77)18 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1194.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
18 March 1980

POSTSCRIPT BY THE SECRETARY

I first began to prepare this Opinion in the spring of 1978, after Dr. Hastings' death. Among the letters on the file was one from Dr. Hastings saying that she intended publishing a full description of the proposed neotype 'elsewhere'. I therefore asked Professor J.S. Ryland (*University College, Swansea, U.K.*) as her literary executor if there was any sign of such a paper (published or unpublished) among her papers. Professor Ryland was then serving for two years in the University of the South Pacific, Fiji. On his return he wrote to me in January 1981 to say that he could find no such work and suggested that there had been a misunderstanding on my part: in the first application (*Bull. zool. Nom.* vol. 24, p. 318, 1967) Dr. Hastings had referred to the description of the neotype as being 'in press', and this was copied uncritically in the republished application (vol. 30, p. 181, 1974). In fact, that description had been published in 1968 (*Bull. Brit. Mus. (nat. Hist.), Zool.*), vol. 16(9), pp. 361–362, and the delay in publishing this Opinion has been unnecessary. This is regretted. R.V.M.

OPINION 1195
PLEUROCERA RAFINESQUE, 1818 (GASTROPODA): THE TYPE SPECIES IS *PLEUROCERUS ACUTUS* RAFINESQUE *IN* BLAINVILLE, 1824

RULING.— (1) The authorship of the specific name *acutus,* as published in the binomen *Pleurocerus acutus*, is to be cited as "Rafinesque *in* Blainville, 1824".

(2) Under the plenary powers, all designations of type species for the nominal genus *Pleurocera* are hereby set aside and *Pleurocerus acutus* Rafinesque *in* Blainville, 1824 is hereby designated as type species of that genus.

(3) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Pleurocera* Rafinesque, 1818 (gender, feminine), type species, by designation under the plenary powers in (2) above, *Pleurocerus acutus* Rafinesque *in* Blainville, 1824 (Name Number 2137);

(b) *Lithasia* Haldeman, 1840 (gender: feminine), type species, by monotypy, *Anculosa (Lithasia) geniculata* Haldeman, 1840 (Name Number 2138).

(4) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *acutus* Rafinesque *in* Blainville, 1824, as published in the binomen *Pleurocerus acutus* (specific name of type species of *Pleurocera* Rafinesque, 1818 (Name Number 2768);

(b) *geniculata* Haldeman, 1840, as published in the combination *Anculosa (Lithasia) geniculata* (specific name of type species of *Lithasia* Haldeman, 1840) (Name Number 2769).

HISTORY OF THE CASE Z.N.(S.)83

An application for a ruling on the type species of *Pleurocera* Rafinesque, 1818 was first received by the late Dr. C.W. Stiles from the late Dr. H.A. Pilsbry on 20 January 1925. Dr. Pilsbry pointed out that '*Pleurocera* [had] been universally used for species congeneric with *P. acuta* Raf. since 1872...'. Dr. Stiles pursued some correspondence on the case but had not circulated it to the Commission before he resigned on the grounds of ill health in 1935.

The late Mr. Francis Hemming, the successor to Dr. Stiles as Secretary to the Commission, published a report on the case on 20

April 1951 in *Bull. zool. Nom.* vol. 2, pp. 6–17. His report posed the question whether or not the plenary powers should be used to designate *Pleurocera acuta* Rafinesque (*sic*) as type species of *Pleurocera* and concluded with a recommendation that they should be so used. His recommendation was supported by Mr. Joshua L. Baily, Jr. and Dr. Emilio Berio; it was opposed by Dr. J.P.E. Morrison and Dr. Harald A. Rehder. Mr. Hemming sought advice from a number of specialists in Mollusca, but had no replies. When he handed the files over to me (as Assistant Secretary) in August 1958, he placed a minute on Z.N.(S.)83 saying 'Case held up so far through difficulty in obtaining a sufficient number of comments from workers familiar with the group'.

In December 1958 Dr. Joseph Rosewater wrote to ask whether an Opinion had ever been issued on the case and expressed support for Mr. Hemming's recommendation. In reply, I asked for the names of workers who might advise the Commission. After further extensive correspondence. I published a fresh report summarising the comments received in *Bull. zool. Nom.*, vol. 17, pp. 170–174 (8 April 1960). I had by that time returned to my permanent post with the Geological Survey of Great Britain (now incorporated in the Institute of Geological Sciences, London) and left the matter in the hands of the late Dr. W.E. China, my successor as Assistant Secretary to the Commission.

A number of comments were received, mainly in favour of the course originally recommended by Mr. Hemming, but the case was not taken to a conclusion.

In 1975, when I was again able to devote a small part of my time to the work of the Commission, I received an enquiry from Mr. David Heppell on the fate of the *Pleurocera* case. This led to a fresh round of correspondence. On 9 June 1976 I sent a revised report to the printer and this was published on 30 September 1976 in *Bull. zool. Nom.* vol. 33, pp. 105–113. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to nine general serials and three malacological serials. In this, the third published report on the case, I presented the issues concerning the generic names separately from those concerning the family-group names involved, so that they could be voted on separately. The latter have, in fact, not yet been resolved and are not dealt with in the present Opinion.

My proposal to use the plenary powers to designate *Pleurocera acuta* (sic) as type species of *Pleurocera* was supported by Dr. A.H. Clarke (*Bull. zool. Nom.* vol. 34, pp. 197–198; vol. 36, pp. 140–141), Dr. Harald Rehder (vol. 34, pp. 198–199), Dr. D.W. Taylor (vol. 34, p. 199), Dr. Joseph Rosewater (vol. 36, p. 140), Dr. Henry van der Schalie and Dr. Billy Isom. It was opposed by Dr.

Carol Stein (vol. 34, pp. 196–197; vol. 36, pp. 141–142), by Dr. J.P.E. Morrison (vol. 36, p. 139) and Professor Stansbery.

DECISION OF THE COMMISSION

On 24 November 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)31 in Part 1 on the authorship to be attributed to the name '*Pleurocerus acutus*', and in Part 2 for or against the use of the plenary powers to designate that species as type species of *Pleurocera* Rafinesque, 1818. The following note accompanied the voting paper:

'The essence of this case is whether the Code is to be strictly applied so that *Pleurocera verrucosa* Rafinesque, 1820, is to be the type species of *Pleurocera* Rafinesque, 1818, by subsequent monotypy; or whether the plenary powers should be used to designate *Pleurocera acuta* (with authorship to be decided in the voting paper) as type species.

'Until a late stage in the history of the case, it was thought that the binomen *Pleurocera acuta* had been first published by Rafinesque, 1831. Dr. Morrison stated, however, in vol. 36, p. 139, that that name was preoccupied by *Pleurocerus acutus* (attributed by him to "Raf. in Blainville"), 1824. Dr. Carol Stein threw helpful light on this name (vol. 36, pp. 141–142) and this was discussed by the Secretary (pp. 144–145).

'The documentation in the case is voluminous. It is therefore important not to lose sight of the evidence of usage. Evidence provided by Dr. Rosewater (vol. 35, pp. 108, 111–113) and Dr. Burch (vol. 36, pp. 196–197) shows 50 references between 1918 and 1975 to the use of *Pleurocera* as though *P. acuta* were its type species, and 3 as though *verrucosa* were its type species. Dr. Burch also states (vol. 36, pp. 196–197) that a 'search of the non-malacological biological and palaeontological literature will show that *Pleurocera* has almost invariably been used as though *P. acuta* were its type species, and that such references number in their hundreds'.

At the close of the voting period on 24 February 1981 the state of the voting was as follows:

Part 1

That the author of *Pleurocerus acutus* is 'Blainville, 1824' — nine (9), received in the following order: Holthuis, Trjapitzin, Alvarado, Habe, Heppell, Hahn, Tortonese, Brinck, Ride

That the author of *Pleurocerus acutus* is 'Rafinesque *in* Blainville, 1824' — fourteen (14), received in the following order:

Melville, Willink, Mroczkowski, Starobogatov, Corliss, Welch, Dupuis, Lehtinen, Cogger, Binder, Bayer, Nye, Sabrosky, Bernardi

Part 2

Affirmative Votes — nineteen (19) received in the following order: Melville, Holthuis, Willink, Trjapitzin, Mroczkowski, Alvarado, Habe, Heppell, Corliss, Hahn, Welch, Tortonese, Brinck, Ride, Binder, Bayer, Nye, Sabrosky, Bernardi

Negative Votes — three (3): Starobogatov, Lehtinen, Cogger

Abstention — Dupuis

Halvorsen and Vokes were on leave of absence. No voting paper was returned by Kraus.

The following comments were sent in by members of the Commission with their voting papers:

Heppell: 'More than fifty years ago the ICZN was asked to decide whether the type species of *Pleurocera* Rafinesque, 1818, should be *P. verrucosa* Rafinesque, 1820, or *P. acuta* Rafinesque, 1831. Whatever the merits of the arguments on each side, the original proposals and most of the subsequent comments have been in favour of *P. acuta*. The preponderance of usage also indicates that *P. acuta* is a good candidate for the use of the Commission's plenary power. On two previous occasions, after publication of the case in 1951 and 1960, complications involving names of the family group prevented a vote being taken on the question of the type species. With the passage of time the case for *P. acuta* has been strengthened by further general usage and some of the authors who formerly opposed it have changed their minds. It therefore looks suspiciously like sabotage when one of the few remaining advocates for *P. verrucosa* introduces at a very late stage in the discussion the assertion that *P. acuta* Rafinesque, 1831, cannot be named as type species because it is preoccupied. Unfortunately the Secretary, on the assumption that this information is correct and simply overlooked by all other workers who have taken an active interest in the case, has substituted "*Pleurocerus acutus*" for *Pleurocera acuta* on the voting paper, dating the taxon from 1824 and requesting an additional vote to determine its authorship. If *Pleurocerus acutus* Blainville, 1824, is seriously to be considered as type species of *Pleurocera*, why was it not mentioned by Morrison in his comment in 1951? Although it may be argued that the 1824 reference is in a rare publication, it is well known that the text of Blainville's 1825 *Manuel* is identical and readily available in any good malacological library.

'There is no doubt that *Pleurocerus* is an incorrect subsequent spelling for *Pleurocera*, even though it was also adopted by other

authors, for example Rang, 1829 (*Manuel*) and G.B. Sowerby, 1842 (*Conch. Manual* 2nd Edn). The status of the two specific names included by Blainville is obviously that of *nomina nuda* and they have always been regarded as such up till now. The descriptions of Blainville's two (unnamed) subgenera cannot be applied to the specific names. Even if "*Oxytrème*" is regarded as an incorrect spelling for *Oxytrema* one cannot argue a single combined description of the subgenus and species under Article 16a(vi) as "*Oxytrème*" is not a new nominal genus. Even if it were it is evident from Dr. Stein's own argument that *Oxytrema acuta* of 1824 could not be identified without the presumption that it is identical to *Pleurocera acuta* of 1831. I am not aware that a *nomen dubium* can become acceptable with its original date and authorship if the same name is subsequently published by another author and accompanied by an adequate description.

'I am loath to impede the final progression of this case to a conclusive vote by invoking Bylaw 24, but I do earnestly request the Secretary to reconsider the attribution to be given to the taxon *Pleurocera acuta* and to treat an affirmative vote as affirming only that *P. acuta* is to be regarded as type species of *Pleurocera* by plenary power, together with the other matters arising consequentially therefrom. My vote is to be regarded as an affirmative vote but with *Pleurocera acuta* Rafinesque, 1831, substituted for *Pleurocerus acutus*, 1824, wherever the latter name occurs in paragraphs 2, 3 and 4 of the voting paper; my vote in paragraph 1 (which I consider unnecessary) is not to imply that I consider *Pleurocerus acutus* Blainville, 1824, as anything other than a *nomen nudum*; I vote against paragraph 5 as an incorrect subsequent spelling has no status in nomenclature as a separate taxon, so there is no "*Pleurocerus* Blainville, 1824" to put on any List, and the Commission was not required to decide whether this name was to be regarded as an emendation.'

Reply by the Secretary: I have not acceded to Mr. Heppell's request to re-open this case under Bylaw 24 because I do not think that the proposition that *Pleurocerus acutus* Rafinesque *in* Blainville, 1824 is a *nomen nudum* is tenable. I consulted Dr. Holthuis on this point, and he concurs with my view that the name *acutus* is indeed made available in Blainville. The relevant passage is:

PLEUROCÈRE. *Pleurocerus.*

Animal incomplètement connu, ayant la tête proboscidiforme; deux tentacules latéraux, subulés, aigus; les yeux à leur base externe.

Coquille ovale ou pyramidale; ouverture oblongue; la lèvre extérieure mince; l'interne collée contre la columelle, qui est lisse et torse, sans ombilic.

Opercule corné, ou membraneux.

A. Espèces dont l'ouverture est seulement oblongue.

Ex. Le Pleurocère oblong. *Pleurocerus oblongus.*

B. Espèces dont l'ouverture est aiguë aux deux extrémités, et dont l'antérieure se prolonge en une longue pointe aiguë.

(G. OXYTRÈME. Rafin.)

Ex. Le Pl. aigu. *P. acutus.*

Observ. Nous n'avons vu ni l'animal, ni la coquille de ce genre, proposé par M. Rafinesque; peut-être n'est-ce que la paludine coupée de M. Say?

In Section B. of *Pleurocerus*, while "*Oxytrème*" is clearly a vernacular name and not available, *P. acutus* is associated with the description of the Section, in which it is the only species. The name is, therefore, available and can only be disposed of by suppression under the plenary powers. An application to that effect could be considered on its own merits, independently of the determination of the nominal type species of *Pleurocera*.

The status of *Pleurocerus* (whether an emendation or an incorrect subsequent spelling) has not been considered by the Commission and is in any case peripheral to the main issue. R.V.M.

Dupuis: 'Il est évident que *Pleurocerus acutus* n'est pas attribuable à de Blainville, qui n'a vu ni l'animal, ni la coquille, et n'indique aucune origine géographique. L'attribution du genre à Rafinesque est attestée par Blainville lui-même.

'L'attribution de l'espèce à Rafinesque peut résulter de plusieurs considérations:

'(a) Blainville, qui était rédacteur du *Journal de Physique, de Chimie et d'Histoire Naturelle,* publié à Paris (non Bruxelles, contre *Bull. zool. Nom.* vol. 33, p. 105) a été de bonne heure en rapport avec Rafinesque, comme le prouve l'article de celui-ci dans le tome 88, 1819, de ce journal.

'(b) Il a existé un manuscrit de 1821 de Rafinesque sur les Gastropodes de l'Ohio et du Kentucky. Rafinesque, 1831, p. 6 (non reproduit dans Binney & Tryon, 1864) déclare en effet: "In 1821 I wrote the Monograph of the Univalve shells of Ohio and Kentucky, which I sent to Brussels for publication: it reached that city when Mr. Bory [de St. Vincent, rédacteur des *Annales générales des Sciences physiques*, Bruxelles] had returned to Paris, and I have never heard when it was printed..." Cette monographie n'a jamais paru, ni dans les *Annales* de Bory, ni dans le *Journal* de Blainville, mais l'existence du manuscrit dans les mains des zoologistes français peut expliquer l'origine des informations de Blainville.

'(c) Rafinesque, 1831, p. 2, s'attribue l'espèce *acuta* dès 1818 (date de récolte ou de description in litt., mais non point de publication!) et indique son origine: Lake Erie [ce qui est

compatible en lieu et date — avec l'Ohio du manuscrit de 1821].

'Pour ces raisons, je vote pour *acuta* Rafinesque *in* Blainville, 1824.

'Je m'abstiens sur tous les autres points, car les considérations d'usage mises en avant en faveur de *acuta* comme type du genre sont difficilement testables pour un non spécialiste étranger aux Etats-Unis (toutes les considérations d'usage n'ont, du reste, en général, qu'une valeur locale, temporaire ou disciplinaire souvent exagérée par les requérants)'

Cogger: 'Where competent specialists disagree on nomenclatural matters one should invoke the plenary powers with caution. While there is no doubt from the various submissions that most workers in this century have accepted that *acuta* is the type species of *Pleurocera*, I remain unconvinced that nomenclatural stability would be seriously affected by the strict application of the Code, especially in view of the widely-acknowledged instability (by virtually all parties to the dispute) of pleurocerid systematics. Both sides (e.g. Stein and Davis) have resorted to special (and unsubstantiated) pleading for extreme positions, but neither the Code nor current usage should be sacrosanct. However, I remain unconvinced that stability of nomenclature is likely to be seriously compromised, and vote against the application.'

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the ruling given in the present Opinion:

acutus, Pleurocerus, Rafinesque *in* Blainville, 1824, *Dict. Sci. nat.*, vol. 32, p. 236

geniculata, Anculosa (Lithasia), Haldeman, 1840, *Monogr. Limniades or freshwater univalve shells of North America.* Suppl. to No. 1, p.1

Lithasia Haldeman, 1840, *Monogr. Limniades or freshwater univalve shells of North America*, Suppl. to No. 1, p. 1

Pleurocera Rafinesque, 1818, *Amer. mon. Mag. crit. Review*, vol. 3, p. 355.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)31 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1195.

R.V. MELVILLE, *Secretary*

International Commission on Zoological Nomenclature, London, 20 March 1981

OPINION 1196
BEYRICHIA M'COY, 1846 (CRUSTACEA: OSTRACODA): DESIGNATION OF TYPE SPECIES AND OF NEOTYPE FOR THAT SPECIES

RULING.— (1) Under the plenary powers

(a) all designations of type specimen for the nominal species *Beyrichia kloedeni* M'Coy, 1846 hitherto made are hereby set aside and the specimen proposed by Siveter & Sylvester-Bradley, 1976, is hereby designated as neotype of that species;

(b) all designations of type species for the nominal genus *Beyrichia* M'Coy, 1846 hitherto made are hereby set aside and *Beyrichia kloedeni* M'Coy, 1846, as interpreted by the neotype designated in (a) above is hereby designated as type species of that genus.

(2) The generic name *Beyrichia* M'Coy, 1846 (gender: feminine), type species, by designation under the plenary powers in (1)(b) above, *Beyrichia kloedeni* M'Coy, 1846, is hereby placed on the Official List of Generic Names in Zoology with the Name Number 2139.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *kloedeni* M'Coy, as published in the binomen *Beyrichia kloedeni* (specific name of type species of *Beyrichia* M'Coy, 1846) (Name Number 2770);

(b) *tuberculatus* Kloeden, 1834, as published in the binomen *Battus tuberculatus* (Name Number 2771).

(4) The family name BEYRICHIIDAE Matthew, 1886 (type genus *Beyrichia* M'Coy, 1846) is hereby placed on the Official List of Family-Group Names in Zoology with the Name Number 517.

(5) The generic name *Beyrichia* Boll, 1847 (a junior homonym of *Beyrichia* M'Coy, 1846) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Number 2120.

HISTORY OF THE CASE Z.N.(S.)1117

An application to designate the type species of *Beyrichia* and the type specimen of that species was first received from the late Professor P.C. Sylvester-Bradley and Dr. Stuart A. Levinson on 4 May 1956. It was not sent to the printer until I read the file as Assistant Secretary in September 1959, when a revised version was

sent to the applicants for their approval. This was sent to the printer on 27 October 1959 and published on 8 April 1960 in *Bull. zool. Nom.* vol. 17, pp. 227–230. No use of the plenary powers was called for. No comment was received.

FIRST VOTE OF THE COMMISSION

On 1 December 1960 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1960)30 for or against the proposals set out in *Bull. zool. Nom.* vol. 17, pp. 229–230. At the close of the voting period on 1 March 1961 there were 24 affirmative votes and one negative vote from Key, who observed: '(1) The citing of an older name (*Battus tuberculatus*) in the synonymy of *Beyrichia kloedeni* by M'Coy renders *kloedeni* clearly a replacement name and hence an objective synonym of *tuberculatus,* invalid as long as the latter is valid. (2) Under Article 72d, therefore, the type of *kloedeni* must be the type of *tuberculatus,* and the selection by the applicants of a different type is invalid. (3) Under Article 67e, furthermore, *tuberculatus* is the type species of *Beyrichia*. It is not true, of course, that *kloedeni* was "still born" and "invalidated for all time", but otherwise the conclusions of Kesling & Wagner are in accordance with the Code. Since the applicants do not invoke the plenary powers, their request cannot be acceded to.'

As Dr. Key's view was undoubtedly correct, Professor Sylvester-Bradley was invited to write a short note for the *Bulletin* asking for those powers to be used. However, he found himself unable to agree with Dr. Key and declined to do so. He suggested that Dr. Anders Martinsson be approached, but no such note was ever received from him.

REVIVAL OF THE CASE

On 1 November 1973 a letter was received from Dr. David J. Siveter enquiring as to the fate of the original application by Professor Sylvester-Bradley and Dr. Levinson. After a lengthy exchange of correspondence, a fresh application was prepared and sent to the printer on 19 February 1976. It was published on 26 June 1976 in *Bull. zool. Nom.* vol. 33, pp. 61–64. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, six general serials and two palaeontological serials. No comment was received.

DECISION OF THE COMMISSION

On 24 November 1980 the members of the Commission were

invited to vote under the Three-Month Rule on Voting Paper (1980)32 for or against the proposals contained in *Bull. zool. Nom.*, vol. 33, pp. 63–64. At the close of the voting period on 24 February 1981, the state of the voting was as follows:

Affirmative Votes — nineteen (19), received in the following order: Melville, Holthuis, Willink, Mroczkowski, Trjapitzin, Alvarado, Starobogatov, Habe, Corliss, Hahn, Welch, Tortonese, Heppell, Brinck, Lehtinen, Binder, Bayer, Bernardi, Nye

Negative Votes — four (4): Dupuis, Ride, Cogger, Sabrosky

Halvorsen and Vokes were on leave of absence. No voting paper was returned from Kraus.

The following comments were sent in by members of the Commission with their voting papers:

Heppell: 'This can be regarded as a straightforward case for the application of Article 70a. *Beyrichia kloedeni* M'Coy can then be interpreted as a replacement name for *Battus tuberculatus* M'Coy *non* Kloeden and as its type material is extant but unsatisfactory the need for it to be replaced by a neotype designated under the plenary powers follows as a matter of course.'

Dupuis: 'Il me paraîtrait préférable de considérer la synonymie *kloedeni* M'Coy, 1846 / *tuberculatus* Kloeden, 1834, donnée par M'Coy, comme une identification erronée d'espèce-type. En ce cas, *Beyrichia* demeurerait avec son espèce-type *kloedeni*, fondée sur le lectotype de Sylvester-Bradley et Levinson. *Tuberculatus,* avec son néotype choisi par Martinsson, demeurerait utilisable pour inclusion — éventuellement — dans tout autre genre.'

Ride: 'While I agree with the intention of the application, the issue is not one of setting aside an earlier designation. A replacement name has *ipso facto* the same type as the name it replaces (Art. 72d). There is no designation to be set aside. The applicants should be seeking either for (a) *B. kloedeni* M'Coy, 1846, to be declared a species described in synonymy and the proposed neotype recognised for it, or (b) *B. kloedeni* M'Coy, 1846, to be suppressed and the "material from Ireland" to be set aside in favour of the proposed neotype for that species.'

Cogger: 'The authors simply state that the application of the Code would result in changes to names that have been accepted by most (though clearly not all) workers for the past 26 years. They have not demonstrated that such an upset of current usage would seriously affect stability.'

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Beyrichia M'Coy, 1846, *Synopsis Silurian fossils of Ireland...* (Dublin), p.57

Beyrichia Boll, 1847, *Palaeontographica*, vol. 1, p. 127

BEYRICHIIDAE Matthew, 1886, *Proc. Trans. roy. Soc. Canada* (1) vol. 3 (4), pp. 63

kloedeni, Beyrichia, M'Coy, 1846, *Synopsis Silurian fossils of Ireland... (Dublin), p.58*

tuberculatus, Battus, Kloeden, 1834, *Verstein. Mark Brandenburg*, p. 112.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)32 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1196.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
24 March 1981

OPINION 1197
CYPRAEA PIPERITA GRAY, 1825, *C. COMPTONII* GRAY, 1847, *C. BICOLOR* GASKOIN, 1849 AND *C. ANGUSTATA* GMELIN, 1791 (GASTROPODA): PLACED ON THE OFFICIAL LIST

RULING.— (1) The request for the use of the plenary powers to suppress the specific name *piperita* Gray, 1825, as published in the binomen *Cypraea piperita*, is hereby refused.

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *piperita* Gray, 1825, as published in the binomen *Cypraea piperita* (Name Number 2772);

(b) *comptonii* Gray, 1847, as published in the binomen *Cypraea comptonii* (Name Number 2773);

(c) *bicolor* Gaskoin, 1849, as published in the binomen *Cypraea bicolor* (Name Number 2774);

(d) *angustata* Gmelin, 1791, as published in the binomen *Cypraea angustata,* and as interpreted by the neotype designated in *Bull. zool. Nom.* vol. 19, p. 319 (Name Number 2775).

(3) The specific name *verconis* Cotton & Godfrey, 1932, as published in the binomen *Notocypraea verconis* (a junior objective synonym of *Cypraea angustata* Gmelin, 1791) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1093.

HISTORY OF THE CASE Z.N.(S.)1510

An application for the suppression of *Cypraea piperita* Gray, 1825, under the plenary powers was first received from Dr. R.J. Griffiths on 30 November 1961. This was published in *Bull. zool. Nom.* vol. 19, pp. 317–322, September 1962, and voted on in Voting Paper (1964)11, of which the voting period ended on 1 October 1964. Fourteen affirmative and two negative votes were received, but because of a number of critical comments, no Opinion was published.

In October 1974, these comments were communicated to Dr. Griffiths. A revised application was prepared by Mrs. Green (then Scientific Assistant to the Commission), sent to the printer on 5 March 1975 and published on 22 September 1975 in *Bull. zool. Nom,*. vol. 32, pp. 115–120. The problem was broken down into two parts: in the first part, the four following choices were offered: (1) direct application of the Code; *C. piperita* and *C. comptonii* could

then represent two species with *C. bicolor* representing either a subspecies of one of them or a third species; (2) use of the plenary powers to designate the lectotype of *C. bicolor* as neotype of *C. piperita*, so that the former name would disappear as a junior objective synonym of the latter; (3) use of the plenary powers to suppress *piperita* so that only *C. comptonii* and *C. bicolor* would survive as valid names; (4) use of the plenary powers to suppress *C. piperita* Gray, 1825 and all uses of that name prior to its use by Sowerby in 1832, so as to preserve the name in its current use. In the second part, the holotype of *Notocypraea verconis* Cotton & Godfrey, 1932 was designated as neotype of *Cypraea angustata* Gmelin, 1791 and it was proposed that the latter name be placed on the Official List.

DECISION OF THE COMMISSION

On 24 November 1980 the members of the Commission were invited to vote under the Three-Month Rule in Voting Paper (1980)33, in part 1 of one of the four choices mentioned above, and in part 2 for or against the proposals concerning *C. angustata* Gmelin, 1791. At the close of the voting period on 24 February 1981 the state of the Voting was as follows:

Part 1

Choice 1, Affirmative Votes — twenty (20) received in the following order: Melville, Holthuis, Willink, Mroczkowski, Trjapitzin, Alvarado, Starobogatov, Hahn, Welch, Tortonese, Heppell, Dupuis, Brinck, Lehtinen, Cogger, Binder, Bayer, Nye, Sabrosky, Bernardi

Choice 2, Affirmative Vote — Habe

Choice 3, Affirmative Vote — none (0)

Choice 4, Affirmative Vote — Corliss, Ride

Part 2

Affirmative Votes — twenty (20) received in the following order: Melville, Holthuis, Willink, Trjapitzin, Starobogatov, Habe, Corliss, Hahn, Welch, Tortonese, Heppell, Dupuis, Brinck, Ride, Lehtinen, Binder, Bayer, Nye, Sabrosky, Bernardi

Negative Votes: Mroczkowski, Alvarado, Cogger

Halvorsen and Vokes were on leave of absence. No vote was returned by Kraus.

The following comments were returned by members of the Commission with their voting papers:

Hahn: 'If syntypes of *C. piperita* sensu Gray, 1825, are preserved, and if it is shown by them that specimens of *C. comptonii*

are slightly different, then apparently two different taxa are present. I therefore vote for choice 1.'

Cogger: 'In regard to Part 1 I would agree with Drs Mroczkowski and Riedel, and with the comments of the late Dr. Lemche (*Bull. zool. Nom.* vol. 36, p. 117) that a vote for any but choice 1 would be an intrusion into a complex taxonomic problem. In regard to Part 2, the formal action taken in paragraph 7 (viz. to designate the holotype of *C. verconis* as neotype of *C. angustata*) obviates the need for the Commission to vote on the proposals. However, such an action in the submission is not only of dubious propriety (given the unresolved taxonomic problems) but is invalid in that it fails to fulfil the requirements of Article 75a and c. Incidentally, while deploring Iredale's taxonomic method, I must accept his logic. The probability of a southern and southeastern Australian mollusc with direct development being the species before Gualterius in 1742 is exceedingly small.'

Bayer:'Consultation with the malacological staff and examination of specimens in the collections of the Smithsonian Institution, consideration of the arguments presented and reference to the recent literature on cowries convince me that the problem of *C. piperita-comptonii-bicolor* is basically taxonomic. The names involved are legally available, the types are extant and available for study, and it remains for the malacologists to sort out the taxa in a thorough and modern way. To suppress names or establish neotypes in order to objectively but artificially synonymise nominal taxa that in fact may not be conspecific strikes me as premature and rash. My malacological colleagues unanimously agree with my view that the names *piperita, comptonii* and *bicolor* should remain available pending thorough taxonomic review, after which the nomenclatural situation can be reappraised.'

ORIGINAL REFERENCES

The following are the original references for the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

angustata, Cypraea, Gmelin, 1791, *Syst. Nat.* ed. 13, vol. 1, p. 3421

bicolor, Cypraea, Gaskoin, 1849, *Proc. zool. Soc. London,* vol. 16 (186), p. 92

comptonii, Cypraea, J.E. Gray, 1847, *Juke's Voyage of H.M.S. Fly*, vol. 2, Appendix, p. 356

piperita, Cypraea, J.E. Gray, 1825, *Zool. Journal,* vol. 1, p. 498

verconis, Notocypraea, Cotton & Godfrey, 1932, *South Austr. Nat.*, vol. 13, p. 41.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)33 were cast as set out above, that the proposal to use the plenary powers has been duly rejected and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1197.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
25 March 1981

OPINION 1198
SMINTHOPSIS MURINA VAR. *CONSTRICTA* SPENCER, 1896 (MAMMALIA, MARSUPIALIA) SUPPRESSED

RULING.— (1) Under the plenary powers the species-group name *constricta* Spencer, 1896, as published in the binomen *Sminthopsis murina* var. *constricta*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The species-group name *constricta* Spencer, 1896, as published in the combination *Sminthopsis murina* var. *constricta*, and as suppressed under the plenary powers in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Number 1094.

HISTORY OF THE CASE Z.N.(S.)2080

An application for the suppression of *Sminthopsis murina* var. *constricta* Spencer, 1896, was first received from Dr. M. Archer (*Queensland Museum, Brisbane, Australia*) on 19 August 1974. After an exchange of correspondence, it was sent to the printer on 9 June 1976 and published on 30 September 1976 in *Bull. zool. Nom.* 33, pp. 127–128. Public notice of the possible use of the plenary powers in the case was given in the same part of the *Bulletin* as well as to the statutory serials, to six general and two mammalogical serials. No comment was received.

DECISION OF THE COMMISSION

On 24 November 1980 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1980)34 for or against the proposals set out in *Bull. zool. Nom.* vol. 33, p. 128. At the close of the voting period on 24 February 1981, the state of the voting was as follows:

Affirmative Votes — eighteen (18), received in the following order: Melville, Holthuis, Willink, Mroczkowski, Trjapitzin, Alvarado, Starobogatov, Habe, Corliss, Hahn, Tortonese, Brinck, Ride, Lehtinen, Bayer, Binder, Bernardi, Sabrosky

Negative Votes — five (5): Welch, Heppell, Dupuis, Cogger, Nye

Vokes and Halvorsen were on leave of absence. No voting paper was returned by Kraus.

The following comments were returned by members of the Commission with their voting papers:

Welch: 'There is a chance that the type may still be found.'

Heppell: 'I vote against the proposal on the grounds that the taxon *Sminthopsis murina* var. *constricta* Spencer is only of

infrasubspecific status and consequently has no status in nomenclature. The applicant presents no evidence to the contrary and from his difficulty in associating the name with any recognised subspecies it must be assumed that there was nothing in Spencer's original description to suggest that it was applied to anything more than an individual variant. It would be pointless to look for the types of named varieties as, to their authors, the two concepts of a type and a variety would have been mutually exclusive. As such names were generally not recognised as being available even to designate subspecific taxa, it would be better if the Commission did not accord them the false status implied by the untenable Monaco ruling even to the extent of adding one to the Official Index of Rejected and Invalid Names.'

Dupuis: 'Je n'estime pas devoir supprimer (c'est toujours commettre un faux) les *nomina dubia*. S'ils sont vraiment douteux, ils ne gênent personne. S'ils deviennent gênants, c'est qu'ils cessent d'être douteux et s'ils ont priorité, il faut alors le reconnaître loyalement.'

Cogger: 'The Commission is being asked to use its plenary powers to resolve what is primarily a taxonomic problem. Stability of nomenclature is not seriously at issue, and the matter can be resolved by available taxonomic procedures.'

Nye: 'The nomenclatural type of *S. ooldea* should be designated as the neotype of *S. murina* var. *constricta*. *S. ooldea* was established only in 1965 so cannot be regarded as a long-established name.'

Bernardi: 'Il me semble justifié de supprimer le nom *constricta* parce que le type de cette entité n'est pas connu avec certitude.'

ORIGINAL REFERENCE

The following is the original reference to a name placed on an Official Index by the ruling given in the present Opinion:
constricta, Sminthopsis murina var., Spencer, 1896, *Rep. Horn Exped. Central Australia*, pt. 2, Zoology, p. 33.

CERTIFICATE

I hereby certify that the votes cast on V.P.(80)34 were cast as set out above, that the proposal contained in that voting paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Opinion No. 1198.

R.V. MELVILLE, *Secretary*
International Commission on Zoological Nomenclature, London, 8 April 1981

DIRECTION 109
SEVEN FAMILY-GROUP NAMES IN INSECTA HETEROPTERA PLACED ON OFFICIAL LIST

RULING.— (1) The following family-group names in Insecta Heteroptera are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) CIMICIDAE Latreille, [1802] (as 'Cimicides'), type genus *Cimex* Linnaeus, 1758 (Official List of Generic Names No. 275) (Name Number 524);

(b) ANTHOCORIDAE Fieber, 1837 (as 'Anthocoridea'), type genus *Anthocoris* Fallén, 1814 (Official List of Generic Names No. 524) (Name Number 525);

(c) NABINI Costa, 1852, type genus *Nabis* Latreille, [1802] (Official List of Generic Names No. 525)(Name Number 526);

(d) PROSTEMMATIDAE Reuter, 1900, type genus *Prostemma* Laporte, [1832] (Official List of Generic Names No. 1186) (Name Number 527);

(e) NOTONECTIDAE, Latreille, [1802] (as 'Notonectariae'), type genus *Notonecta* Linnaeus, 1758 (Official List of Generic Names No. 526) (Name Number 528);

(f) REDUVIIDAE Latreille, 1807 (as 'Reduvini'), type genus *Reduvius* Fabricius, 1775 (Official List of Generic Names No. 527) (Name Number 529);

(g) TRIATOMINI Jeannel, 1919, type genus *Triatoma* Laporte, [1832] (Official List of Generic Names No. 528) (Name Number 530).

(2) The following incorrect original spellings of family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) Cimicides Latreille, [1802] (Name Number 487);
(b) Anthocoridea Fieber, 1837 (Name Number 488);
(c) Prostemmina Reuter, 1890 (Name Number 489);
(d) Notonectariae Latreille, [1802] (Name Number 490);
(e) Reduvini Latreille, 1807 (Name Number 491).

HISTORY OF THE CASE Z.N.(S.)958

In May 1955 an application was received from the late Professor Tadeusz Jaczewski for the placing on the Official List of family-group names in Hemiptera Heteroptera based on generic

names already dealt with by the Commission in Opinions 81 and 104. Professor Jaczewski asked for seven names to be placed on the Official List and for 83 names (incorrect original and subsequent spellings, and names based on invalid generic names) to be placed on the Official Index.

The application was eventually edited by the late Dr. China and published on 2 February 1962 in *Bull. zool. Nom.* vol. 19, pp. 15–22. No use of the plenary powers was involved. No comment was received.

DECISION OF THE COMMISSION

On 18 January 1963 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (1963)2 for or against the proposals set out in *Bull. zool. Nom.* vol. 19, pp. 15–22. Dr. China, as Assistant Secretary, sent the following note with the Voting Paper:

'The Assistant Secretary disagrees with the policy of placing innumerable such incorrect spellings on the Official Index, and knows that a number of Commissioners will support him in this. It is therefore suggested that Commissioners vote to place on the Official Index only those names that are listed by Professor Jaczewski as incorrect original spellings of family-group names, and those based on either invalid or misidentified type genera.' This reduced the 83 names proposed by Professor Jaczewski to 13.

At the close of the voting period on 18 April 1963, the state of the voting was as follows:

Affirmative Votes — twenty-four (24) received in the following order: China, Hering, Holthuis, Bonnet, Vokes, Obruchev, Key, Riley, Mayr, Uchida, Lemche, Alvarado, Bradley, Jaczewski, Stoll, do Amaral, Hemming, Binder, Brinck, Boschma, Tortonese, Mertens, Kühnelt, Evans

Negative Votes — none (0)

A late affirmative vote was received from Munroe. No voting papers were returned by Borchsenius and Miller.

The following comments were sent in by members of the Commission with their voting papers:

Key: 'While thus voting for the Assistant Secretary's restriction of the original application, I wish to put on record my opinion that the proper way to deal with this sort of situation is for the Commission, by formal vote, to adopt an appropriate Direction or repeal or amend an existing Direction, as may be required.'

Bradley: 'It must be kept in mind that we are dealing with family-group names, not necessarily family names. We must not invalidate any name with a termination that could be used for a

family-group taxon of whatever rank. Since terminations have not been fixed for tribe, subtribe and superfamily, that means that we may not interfere with any combination of genus and suffix that is linguistically properly formed. Just as a genus, proposed first as a subgenus, dates from that event, so a family, if proposed as a subfamily or tribe, also dates from that occasion.'

SUBSEQUENT HISTORY OF THE CASE

At this distance in time, and when the protagonists are no longer living, it is impossible to find out why an Opinion or Direction was not published at that time (1963). When I came to re-examine the file at the end of 1977, I judged it prudent to consult the President of the Commission, Dr. C.W. Sabrosky, on the steps to be taken. He took the view that, as the family-group names placed on the Official List were all well known names in current use, a Direction could be issued without a further vote being taken. We also agreed that the names to be placed on the Index could be reduced from the 13 proposed by Dr. China to the incorrect original spellings; and in the light of the comment by the late Professor Chester Bradley, I found these to number five. The present Direction has accordingly been drafted in accordance with those terms of reference.

ORIGINAL REFERENCES

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Direction:

ANTHOCORIDAE Fieber, 1837 (as "Anthocoridea"), *Beitr. Nat. Heilwiss.* vol. 1, p. 106

CIMICIDAE Latreille, [1802] (as "Cimicides"), *Hist. nat. gén. partic. Crust. Ins.* vol. 3, p. 240

NABINI Costa, 1852, *Cimicum regni neapolitani centuria tertia et quartae fragmentum* (Naples), p. 66

NOTONECTIDAE Latreille, [1802] (as "Notonectariae"), *Hist. nat. gén. partic. Crust. Ins.* vol. 3, p. 253

PROSTEMMATIDAE Reuter, 1890 (as "Prostemmina") *Rev. Entomol. Caen*, vol. 9, p. 289

REDUVIIDAE Latreille, 1807 (as "Reduvini"), *Gen. Crust. Inst.* (Paris) vol. 3, p. 126

TRIATOMINI Jeannel, 1919, Insectes Hémiptères vol. 3, *Voy. Ch. Alluaud et R. Jeannel en Afrique Orientale*, pp. 176, 177, 309.

CERTIFICATE

I certify that the votes cast on V.P.(63)2 were cast as set out above, that the proposal contained in that voting paper has been duly adopted, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature, is truly recorded in the present Direction No. 109.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
28 April 1981

DIRECTION 110
IXODES LATREILLE, 1795 (ARACHNIDA: ACARINA): ENTRY IN OFFICIAL LIST OF GENERIC NAMES CONFIRMED

RULING.— (1) The generic name *Ixodes* Latreille, 1795 (gender: masculine), type species, by monotypy, *Acarus reduvius* Linnaeus, 1758, is hereby confirmed in the Official List of Generic Names in Zoology with the Name Number 208.

(2) The specific name *ricinus* Linnaeus, 1758, as published in the binomen *Acarus ricinus* (the valid name under Article 24a, for the type species of *Ixodes* Latreille, 1795) is hereby placed on the Official List of Specific Names in Zoology with the Name Number 2787.

HISTORY OF THE CASE Z.N.(S.)1130

The generic name *Ixodes* Latreille, 1795 (*Mag. encyclop.* vol. 4, p. 18) was placed on the Official List of Generic Names in Zoology in Opinion 73 (*Smiths. misc. Colls*, vol. 73, no. 1 (Publ. 2657), pp. 23–31, 1922) in the following entry: '*Ixodes* Latreille, 1796a, 179, type *Acarus ricinus* Linnaeus, 1758.' Unfortunately, that entry was incorrect in two respects. First, the generic name *Ixodes* was first published by Latreille in 1795, and secondly, the type species is not *Acarus ricinus*. The entry was therefore withheld for further study when the first instalment of the Official Lists was published in book form in 1958.

It is true that in both 1796 (*Précis caract. Ins.*, p. 179) and in [1802] (*Hist. nat. gén. partic. Crust. Ins.*, vol. 3, p. 66) Latreille again published *Ixodes* and that on both occasions the only species referred to the genus was *Acarus ricinus* Linnaeus, 1758; but nothing can override the fact that the genus was established in 1795 with *Acarus reduvius* Linnaeus, 1758 as the sole included species, hence the type species by monotypy.

In 1901 Neumann (*Mém. Soc. zool. France*, vol. 4, p. 282) clearly synonymized *Acarus reduvius* and *Acarus ricinus*, and chose the latter as the valid name for the species. He is the First Reviser under Article 24a.

In 1957, the late Mr. Hemming, as Secretary to the Commission, sought the advice of Dr. Turk on the best solution to the *Ixodes* problem. In an unpublished note later circulated to the Commission, Dr. Turk purported to show that Neumann had not acted as first reviser in terms of Copenhagen Decision No. 123, although I do not see how that position can be upheld. He showed that *A. reduvius* was a composite species, because the references

cited in synonymy refer to an insect while the description clearly denotes a female of *A. ricinus* before it has had its first meal of blood. Dr. Turk therefore (a) designated the specimen on which Linnaeus based his description as the lectotype of *A. reduvius*, and (b), assuming that no author had preceded him, purported to act as First Reviser in designating *A. reduvius* as the valid name among the two synonyms, *A. reduvius* and *A. ricinus*. It seems to me, however, that the grounds upon which Mr. Hemming advised Dr. Turk to reject Neumann's first-reviser action — namely, that *A. reduvius* was a composite species — are without foundation. However, as that note was never published, neither his lectotype selection nor his purported action on the specific name has any standing.

On 26 September 1957 Mr. Hemming invited the members of the Commission to vote under the One-Month Rule on V.P.(O.M.)(57)18 for or against the proposals put forward over Dr. Turk's name. At the close of the voting period on 26 October 1957, there were 18 affirmative and two negative votes. In the course of the voting, Mr. Hemming received the following letter from Dr. Otto Kraus, which caused him to withdraw the voting paper. Dr. Kraus said:

'I can never agree with the proposals made by Dr. Turk. To my mind Neumann, 1901, is to be treated as First Reviser. In 1901 he selected one of the two names (*ricinus, reduvius*), i.e. *ricinus,* as the valid name for this species of tick. Since 1901 the name *ricinus* has been used continuously, and *reduvius* is a long-forgotten name. I feel that the proposal in the voting paper is against the principle of stability and I hope that it will be rejected. The name *ricinus* is a very well known and important one and is used in all modern textbooks and other general literature. It should by all means be protected.'

It is therefore clear that the *Ixodes* problem is solved by the direct application of the Code: *Acarus reduvius* Linnaeus, 1758 is its nominal type species, by monotypy, but the valid name for that species is *Acarus ricinus* Linnaeus, 1758, under Article 24a, by the First Reviser Action of Neumann, 1901. The present Direction can therefore be issued as a correction to Opinion 73 without the need for a further vote by the Commission.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the ruling given in the present Direction:
Ixodes Latreille, 1795, *Mag. encyclop.* vol. 4, p. 18
ricinus, Acarus, Linnaeus, 1758, *Syst. Nat.* ed. 10, vol. 1, p. 615.

CERTIFICATE

I hereby certify that the present Direction No. 110 is issued in conformity with Article 24a of the International Code of Zoological Nomenclature (2nd edition, 1964) as a correction to Opinion 73 and that no exercise of its plenary powers by the Commission is involved.

R.V. MELVILLE
Secretary
International Commission on Zoological Nomenclature
London
29 April 1981

EREMIAS WIEGMANN, 1834 (REPTILIA LACERTILIA): PROPOSED DESIGNATION OF A TYPE SPECIES BY USE OF THE PLENARY POWERS. Z.N.(S.)1172

By the Secretary, International Commission on Zoological Nomenclature

The present application involves the correction of an item in Opinion 92 (*Smiths. misc. Colls* vol. 73 (4), pp. 339–340). *Eremias* Wiegmann, 1834, *Herpetol. Mexic.* (1) p.9, was one of nine reptile generic names then placed on the Official List. *Lacerta velox* Pallas, 1771, *Reise Russland* vol. 1, p. 457, was stated to be the type species of *Eremias*, but this was incorrect. In consequence, when preparations were made for the publication of the first instalment of the Official List of Generic Names in book form, entry no. 432 for *Eremias* was withdrawn, pending further enquiries.

2. Wiegmann established *Eremias* with two included species, *L. velox* Pallas, 1771, and *L. variabilis* Pallas, 1811, *Zoographia* vol. 3, p. 31. He designated neither as type species. The first valid subsequent designation was made by Fitzinger, 1843, *Syst. Rept.*, p. 21, and he chose *L. variabilis*. The genus is, however, currently treated as though *L. velox* was its type species (e.g. Smith, M. 1935, *Fauna British India*, Rept. Amph. vol. 2, 381), and in 1928 Lantz (*Bull. Mus. Géorgie* (4), p. 2 established a new subgenus *Ommateremias* with *Lacerta arguta* Pallas, 1773, *Reise Russland* vol. 2, p. 718 as type species. *L. arguta* is now considered the valid senior synonym of *L. variabilis*.

3. Stability of nomenclature would thus clearly be best served if the Commission were to use its plenary powers to designate *L. velox* as type species of *Eremias*. It is accordingly asked:

(1) to use its plenary powers to set aside all designations of type species hitherto made for the nominal genus *Eremias* Wiegmann, 1834, and having done so, to designate *Lacerta velox* Pallas, 1771 as type species of that genus;

(2) to place on the Official List of Generic Names in Zoology:

  (a) *Eremias* Wiegmann, 1834 (gender: feminine), type species, by designation under the plenary powers in (1) above, *Lacerta velox* Pallas, 1771 (Name No. 432);

  (b) *Ommateremias* Lantz, 1928 (gender: feminine), type species, by original designation, *Lacerta arguta* Pallas, 1772;

(3) to place on the Official List of Specific Names in

Zoology:

(a) *velox* Pallas, 1771, as published in the binomen *Lacerta velox* (specific name of type species of *Eremias* Wiegmann, 1834);

(b) *arguta* Pallas, 1773, as published in the binomen *Lacerta arguta* (specific name of type species of *Ommateremias* Lantz, 1928).

COMMENT ON THE PROPOSAL THAT *CHROMIS* CUVIER *IN* DESMAREST, 1814, AND GENERIC NAMES ENDING IN *–CHROMIS* BE RULED TO BE MASCULINE. Z.N.(S.)2329

(see vol. 37, pp. 247–255)

By W.I. Follett and Lillian J. Dempster (*California Academy of Sciences, San Francisco, California 94118 U.S.A.*)

We support the request of Bailey, Robins & Greenwood that *Chromis* Cuvier *in* Desmarest, 1814, and all generic names ending in *–chromis* be ruled to be masculine.

We question, however, the necessity of exercising the plenary powers in order to effect the result requested. As pointed out by Nye (1980, *Bull. zool. Nom.* vol. 37(3), p. 188), 'Under the Code, Article 30(a)i, the Commission can rule on the gender of a genus-group name without the use of the plenary powers'.

TYPUS SELLARDS, 1909 (INSECTA, PROTODONATA): PROPOSED CONSERVATION UNDER PLENARY POWERS. Z.N.(S.) 2359

By Frank M. Carpenter (*Museum of Comparative Zoology, Harvard University, Cambridge MA 02138, U.S.A.*) and Paul Whalley (*Department of Entomology, British Museum (Natural History), London*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to conserve the unjustified emendation, *Typus* Sellards, 1909, of the generic name *Tupus* Sellards, 1906, and to place the emended name on the Official List of Generic Names in Zoology and the family name TYPIDAE Handlirsch, 1919, on the Official List of Family-Group names in zoology.

2. The name *Tupus* Sellards, 1906 (*Amer. J. Sci.* (4), vol. 22, p. 249), with the type-species *T. permianus* by monotypy, was emended by Sellards in 1909 (*Amer. J. Sci.* (4) vol. 27 p. 151) to *Typus*. Since 1909, the name has consistently been spelled *Typus* in all zoological literature, with the single exception of a short article by E.B. Klots in 1944 (*Amer. Mus. Novitates*, no. 1260, p. 1), in which *Tupus* was used.

3. The name *Typus* is the basis for the family name TYPIDAE Handlirsch, 1919 (*Denkschr. Akad. Wiss. Wien., math. - nat. Klasse*, vol. 96, p. 62) and has been cited in numerous textbooks and research papers, as an example of the extinct order Protodonata and as a representative of the possible ancestral stock of the Odonata. The genus is now known by species from the Upper Carboniferous and/or Permian of France, USSR, Kansas, Georgia, and Oklahoma. The spelling *Typus* has been used in the following works among many others:-

Martynov, A.B., 1938. Etudes sur l'histoire géologique et de phylogénie des ordres des insectes (Pterygota). *Trav. Inst. Paléont.. USSR*. vol. 7, pp. 1–150.

Fraser, F.C., 1957. *A reclassification of the order Odonata*. Handbook 12, Royal Zool. Soc. New South Wales, pp. 1–133.

Crowson, R.A., *et al.* 1967. *In* Harland, W.B., *et al. The Fossil Record*. London (Geol. Soc.), pp., 499–534.

Asahina, S., 1970. *Animal taxonomy from a phylogenetic approach: Insecta, part I*. Systematic Zoology (Japan), pp. 203–343.

Rohdendorf, B.B., Rasnitzyn, A.P., *et al.* 1980. Historical development of the Insecta. *Trans. Paleont., Inst. USSR*, vol. 100, pp. 1–268.

Tillyard, R.J., 1928. Evolution of the Order Odonata. *Rec. Indian Mus.* vol. 30, pp. 151–172.

Handlirsch, A., 1937. Neue Untersuchungen über die fossilen Insekten. *Ann. Nat. Hist. Mus. Wien*. Bd. 48, pp. 1–140.

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4. The International Commission is therefore requested:
   (1) to use its plenary powers to conserve the unjustified emendation *Typus* Sellards, 1909 by the suppression of *Tupus* Sellards 1906 for the purposes of the Law of Priority but not for those of the Law of Homonymy.
   (2) to place on the Official List of Generic Names in Zoology; the generic name *Typus* Sellards, 1909 (gender: masculine), type-species, by monotypy, *Tupus* [sic] *permianus* Sellards, 1906.
   (3) to place on the Official List of Specific Names in Zoology; the specific name *permianus*, 1906, as published in the binomen *Tupus permianus* (type-species of *Typus* Sellards, 1909).
   (4) to place on the Official List of Family-Group Names in Zoology; the family name TYPIDAE Handlirsch, 1919 (type-genus *Tupus* Sellards, 1906).
   (5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the generic name *Tupus* Sellards, 1906 (as suppressed under the plenary powers in (1) above).

COMMENT ON PROPOSED CONSERVATION OF THE GENERIC NAME *TYPUS* SELLARDS, 1909 (INSECTA, PROTODONATA). Z.N.(S.) 2359

By D.L.F. Sealy (*Dept. of Palaeontology, British Museum (Natural History), London*)

I wish to oppose the proposed conservation (*Bull. zool. Nom.* 37(4), p. 194) of the genus-group name *Typus* Sellards 1909 on two grounds, one commonplace and one possibly unique. Neither is strictly entomological.

1. The name *Typus* should not be conserved because *Tupus* Sellards, 1906 has priority, was validly proposed, is not preoccupied and is objectively synonymous. There is no evidence in the original 1906 publication of Sellards of a typographical error as the name is used a number of times in the paper. A validly proposed genus-group name cannot be changed, even by its original author, on grounds of 'inappropriateness' or other second thoughts, unless preoccupied (*Int. Code* Art. 18a, 19). The name *Tupus* is a transliteration into Latin of the Greek word τυπος, presumably meaning, in this case, an outline or impression. While the *Code* (Appendix B) recommends upsilon be transliterated as y, this letter was not used in classical Latin until the 1st Century BC. Can one argue that *Typus* is a more

appropriate transliteration? That this subsequent emendation should have been widely used, I believe in error, by many authors since 1909 is beside the point. Whalley (1980) has now demonstrated the error, at my instigation, and Sellards' original spelling *Tupus* should, I submit, be allowed to stand.

2. Even if otherwise allowable, however, I believe the name *Typus* to be objectionable on other, possibly unique, grounds, in that the word is a technical term in zoological nomenclature. In German and other languages *typus* means a type specimen (or species). Every effort should, in my view, be made to avoid 'homonymy' between technical terms in zoological taxonomy and genus-group names. Although there is no ruling on the subject, I wonder what the Commission's attitude would be if someone were so ill-advised as to propose *Genus* as a genus-group name in Zoology. It would not be long, I suspect, before its suppression as undesirable was achieved! I submit that *Typus* is in the same category, and the opportunity to reject it, which would not require application of the plenary powers, should now be taken. It is significant, perhaps, that Appendix D, para. 8 of the *Code* recommends that the words *typus* and *typicus* should not be used as new names, as they are liable to cause confusion.

I therefore request the Commission to place the genus-group name *Typus* Sellards, 1909 on the Official Index of Rejected and Invalid Generic Names in Zoology, and to place on the Official Index of Rejected and Invalid Family-group names in Zoology the name TYPIDAE Handlirsch, 1919.

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CAPSUS ATER JAKOVLEV, 1889 AND *LYGAEUS QUADRIPUNCTATUS* FABRICIUS, 1794 (INSECTA, HEMIPTERA, HETEROPTERA): PROPOSED NOMENCLATURAL VALIDATION. Z.N.(S.) 2148

By I.M. Kerzhner (*Zoological Institute, Academy of Sciences, Leningrad 199164, USSR*)

Introduction

Under Article 59b(i) of the Code, a junior secondary homonym replaced before 1961 cannot be used as a valid name (except under certain conditions and with the Commission's approval). However, some cases occur in which the replacement name itself cannot be used as a valid name. Two such cases are discussed below. In each of these, because the species concerned are now placed in different genera, I think that nomenclatural validation of the junior secondary homonyms provides the best solution: in each case, that is the oldest available name for the species in question.

Capsus ater Jakovlev, 1889

2. *Deraeocoris ater* (Jakovlev, 1889), originally described as *Capsus ater* (*Horae Soc. entomol. Rossicae*, vol. 24, p. 344; type locality, Irkutsk, Siberia), is a junior secondary homonym of *Capsus ater* (Linnaeus, 1758), originally described as *Cimex ater* (*Syst. Nat.* ed. 10, p. 447). *Cimex ater* was designated as type species of *Capsus* Fabricius, 1803, by the use of the plenary powers in Opinion 298 (*Ops. Decls. int. Comm. zool. Nom.* vol. 8, pp. 199–208, 1954).

3. Two varieties, *D. ater* var. *limbicollis* Reuter, 1901 (*Öfvers. finsk. vet. Soc. Förhandl.* vol. 43, p. 167) from 'Amurland', and *D. ater* var. *amplus* Horváth, 1905, *Ann. Mus. Nat. Hung.* vol. 3, p. 420) from Tokyo, Japan, were described before Kiritshenko (1914, *Russ. entomol. Obozr.*, vol. 13, p. 483) noticed the secondary homonymy and proposed the replacement name *Deraeocoris sibiricus* for the junior secondary homonym.

4. Subsequent authors have not followed a consistent usage. The name *D. ater* Jakovlev was used by Matsumura, 1930, Esaki, 1932, 1952, Lindberg, 1934, Miyamoto, 1957, 1961, Kulik, 1965a, 1965b, and *Capsus ater* by Matsumura, 1931. The name *D. sibiricus* Kiritshenko was used by Hsiao, 1942, Stichel, 1956–1958, Tsherepanov & Kiritshenko, 1962 and Josifov & Kerzhner, 1972. In the world catalogue of MIRIDAE (Carvalho, 1957) the species wrongly appeared under two names — *D. ater* Jakovlev, and *D. sibiricus* Kiritshenko (= *ater* Jak.). The Japanese population is named *D. amplus* Horváth by Miyamoto, 1965, who considers it a

distinct species, though in my opinion the possibility that it is a subspecies cannot be excluded.

5. Under the Code, (1) the specific name *ater* Jakovlev, 1889 cannot be used because a new replacement name *sibiricus* Kiritshenko, 1914, was proposed before 1961 and used by some zoologists; (2) this replacement name cannot be used as the valid name, because two older available names exist (Article 45e(i)): *limbicollis* Reuter, 1901, and *amplus* Horváth, 1905. Of these, the former has never been used as a valid name since its publication and may indeed denote an infrasubspecific form (a colour-variant); the latter may represent either a subspecies or a distinct species; because the latter possibility exists, *amplus* ought not to be adopted in place of *ater*.

6. The plenary powers must therefore be used to give nomenclatural validity either to *ater* Jakovlev or to *sibiricus* Kiritshenko. The latter is less preferable because it would oblige those who believe that *amplus* Horváth denotes a subspecies to give the junior name *sibiricus* precedence over it. The fact that *ater* Jakovlev is the oldest of all the names involved means that its validation would combine the simplest nomenclatural solution (priority) with the highest degree of freedom for different taxonomic views. It is therefore recommended here.

Lygaeus quadripunctatus Fabricius, 1794

7. Wagner, 1938, 1943, has shown that *Adelphocoris annulicornis* (R. Sahlberg, 1848) is conspecific with *A. quadripunctatus* (Fabricius, 1794). Later, he regarded this species as polytypic ('Rassenkreis'), with four subspecies in Europe, two of which are widely distributed — *A. q. quadripunctatus* in central Europe and *A. q. annulicornis* in northern Europe, and two are local central European forms. The taxonomy of this difficult complex needs further work, but the following names are involved in the discussion of nomenclature below.

8. *Lygaeus quadripunctatus* Fabricius, 1794, *Entomol. Syst.* vol. 4, p. 172 (described from 'Germania', type locality not subsequently restricted) was known from 1861 to 1896 in the combination *Calocoris quadripunctatus*. Its name was then a junior secondary homonym of *Cimex quadripunctatus* Villers, 1789, *Linn. Entomol.* p. 535, which was transferred to the genus *Calocoris* in 1888, is a junior primary homonym of *Cimex quadripunctatus* Müller, 1766 and is now considered a junior synonym of *Calocoris striatellus* (Fabricius, 1794) (see Wagner, 1958, Carvalho, 1959 and Kerzhner, 1970 for details).

9. *Capsus annulicornis* R. Sahlberg, 1848, *Monogr. Geocor. Fenn.*, p. 100 (type locality Ylane, Finland), is a junior primary

homonym of *Capsus annulicornis* Herrich-Schaeffer, 1835, *Nomenclator Entomol.* vol. 1, p. 51. This latter name is generally considered a nomen dubium, but in my opinion it is very probably a junior synonym of *Orthops campestris* (Linnaeus,1758), new synonymy.

10. *Adelphocoris annulicornis* R. Sahlberg var. *confluens* Reuter, 1896, *Hem. Gymn. Eur.* vol. 5, pp. 225, 379 was described without data on distribution. In the same work the distribution of *A. annulicornis* was given as Finland, Sweden and Siberia, so that the syntypes of var. *confluens* may have come from any of these countries.

11. *Adelphocoris quadripunctatus* var. *innotata* Reuter, 1906, *Annuar. Mus. Zool. Acad. Sci.* St. Petersburg, vol. 10, p. 20, was described from 'Austria' and several localities in S.E. China (Szechuan). No lectotype has yet been designated.

12. *Adelphocoris quadripunctatus annulatus* Carvalho, 1959, *Arq. Mus. nac.* Rio de Janeiro, vol. 48, p. 18, is a new replacement name for *A. annulicornis* (R. Sahlberg).

13. Wagner, 1958, treated *quadripunctatus* (Fabricius) as an invalid junior secondary homonym and used *annulicornis* as the valid name. He overlooked the fact that the latter is a junior primary homonym. At the same time, for *A. quadripunctatus quadripunctatus* (Fabricius) he accepted *A. annulicornis innotatus* Reuter, and this was followed by most authors.

14. Carvalho, 1959, noted that *annulicornis* (R. Sahlberg) was a junior primary homonym, but in spite of a previously published available replacement name (*confluens* Reuter), proposed a new replacement name *annulatus*. However, this was overlooked by all later authors.

15. The situation with the name of this species is therefore as follows:

(a) The name *quadripunctatus* (Fabricius) cannot be used as its valid name because it is a junior secondary homonym for which a replacement name — *annulicornis* (R. Sahlberg) — was introduced before 1961;

(b) that replacement name cannot be used because it is a junior primary homonym;

(c) the oldest nomenclaturally valid name, *confluens* Reuter, has been rarely used, and with infrasubspecific rank for a colour-variety;

(d) the next name, *innotatus* Reuter, is a junior synonym of *confluens* used (as a subspecific name) only in recent years and by a few authors.

16. The following references give proof of the use of

quadripunctatus after Wagner's 1958 publication: Josifov & Kerzhner, 1972, *Ann. zool. Warszawa*, vol. 29, p. 166; Miyamoto, 1974, *Rostria,* vol. 23, p. 121; Kershner, 1978, *Trudy biol.-pochv. Inst. Vladivostok*, vol. 50, p. 42; Vinokurov, 1979, *Heteroptera of Yakutia* (in Russian), p. 183. This is not an exhaustive list. Many could be added from the '60s.

17. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the following specific names are nomenclaturally valid:
   (a) *ater* Jakovlev, 1889, as published in the binomen *Capsus ater*;
   (b) *quadripunctatus* Fabricius, 1794, as published in the binomen *Lygaeus quadripunctatus*;

(2) to place the above-mentioned specific names on the Official List of Specific Names in Zoology.

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BYRRHUS SEMISTRIATUS FABRICIUS, 1794 (INSECTA, COLEOPTERA, BYRRHIDAE): PROPOSED CONSERVATION. Z.N.(S.) 2317

By Maciej Mroczkowski (*Institute of Zoology, Polish Academy of Sciences, Warszawa, Poland*)

1. A.G. Olivier, 1790, no. 13, p. 9, described from the surroundings of Paris a species called *Byrrhus picipes*. Since the description the name *picipes* has been used in systematic works only by J.F. Stephens, 1830, p. 140, and by G. Steffahny, 1843, p. 37. W.F. Erichson, 1847, p. 494, placed *Byrrhus picipes* Oliv. in the synonymy of *Simplocaria semistriata* (Fabr., 1794).

2. J.G. Kugelann, 1792, p. 485, described from Königsberg (now Kaliningrad) a species called *Byrrhus rufipes*. Since the description the name *rufipes* has not been used in systematic works.

3. J.C. Fabricius, 1794, p. 437, described from 'Germania' a species called *Byrrhus semistriatus*. The name *semistriatus* (in the combination *Simplocaria semistriata*) has been used by a number of authors in many systematic works and in all works issued after Erichson's monograph (1847). *Simplocaria semistriata* (Fabr.) is a common species, distributed in North and Central Europe. The nominal species *semistriata* is the type species of the genus *Simplocaria* Stephens, 1829, p. 9, by subsequent designation by Jacquelin du Val, 1859, p. 267.

4. The World Catalogue (Dalla Torre, 1911, p. 14), as well as previous European catalogues, listed both *picipes* Oliv. and *rufipes* Kugel. as synonyms of *semistriata*.

5. As the name *semistriata* (in the combination *Simplocaria semistriata*) has been in continuous use since 1847, the application of the Law of Priority would disrupt stability and cause confusion. Therefore the Commission is requested to take the following actions:

(1) to use its plenary powers to rule that the specific name *semistriatus* Fabricius, 1794, as published in the binomen *Byrrhus semistriatus*, is to be given nomenclatural precedence over both the specific names *picipes* Olivier, 1790, as published in the binomen *Byrrhus picipes*, and *rufipes* Kugelann, 1792, as published in the binomen *Byrrhus rufipes*, by anyone who considers that these three names, or any two of them, denote the same taxon;

(2) to place on the Official List of Generic Names in Zoology the generic name *Simplocaria* Stephens, 1829 (gender: feminine), type species, by

subsequent designation by Jacquelin du Val, 1859, *Byrrhus semistriatus* Fabricius, 1794;

(3) to place the following names on the Official List of Specific Names in Zoology:

(a) *semistriatus* Fabricius, 1794, as published in the binomen *Byrrhus semistriatus*, with an endorsement that it is to be given nomenclatural precedence over both *Byrrhus picipes* Olivier, 1790, and *Byrrhus rufipes* Kugelann, 1792, by anyone who considers that all three names, or any two of them, apply to the same taxon;

(b) *picipes* Olivier, 1790, as published in the binomen *Byrrhus picipes*, with an endorsement that it is not to be given nomenclatural precedence over *Byrrhus semistriatus* Fabricius, 1794, by anyone who considers that both names apply to the same taxon;

(c) *rufipes* Kugelann, 1792, as published in the binomen *Byrrhus rufipes*, with an endorsement that it is not to be given nomenclatural precedence over *Byrrhus semistriatus* Fabricius, 1794, by anyone who considers that both names apply to the same taxon.

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AEOLIDIELLA BERGH, 1867 (GASTROPODA, OPISTHOBRANCHIA): PROPOSALS TO CLARIFY THE TYPE SPECIES OF THE GENUS. Z.N.(S.) 1986

By Gregory H. Brown (*Zoology Department, University of Bristol, U.K.*)

The purpose of the present application is to clarify the type species of the genus *Aeolidiella* Bergh, 1867 (*Vidensk. Meddr. Dansk Naturh. Foren.*, p.99) by the suppression under the plenary powers of the nomen dubium *Eolida soemmerringii* F.S. Leuckart, 1828 (*Breves Anim.*, p. 16) and the designation of a new type species for the genus.

2. In Opinion 780, the generic name *Aeolidiella* Bergh, 1867 was placed on the Official List as name number 1720, and its type species *Eolida soemmerringii* F.S. Leuckart, 1828, selected by Suter, 1913 (*Man. N.Z. Moll.*, p. 581) was entered on the Official List of Specific Names as name number 2152.

3. However, Leuckart's specimens are lost and doubts have been expressed about the true identity of *E. soemmerringii* Leuckart. Bergh in 1864 (*Anatomiske Bidrag til Kundskaben om Aeolidierne*, p.203) described the anatomy of a specimen from the type locality, Cette (Sète) in France, which he identified as *Aeolida soemmeringii* Leuckart (an incorrect spelling used consistently by Bergh and some subsequent authors). Bergh in 1867 created the genus *Aeolidiella* to accommodate the animal he had investigated in 1864 but in 1882 (*Verh. zool.-bot. Ges. Wien* 1882, p. 8) he decided that it was in fact a new species and that Leuckart's species *Eolida soemmerringii*, was a synonym of *Amphorina caerulea* (Montagu). This latter species was originally described under the binomen *Doris caerulea* Montagu, 1804 (*Trans. Linn. Soc. Lond.*, vol. 7, p. 78) and, in Opinion 777 (*Bull. zool. Nom.* vol. 23, pp. 95–97, 1966), was placed on the Official List of Specific Names as name number 2146 and as the type species of *Trinchesia* Ihering, 1879 (*Zool. Anz.*, vol. 2, p. 137). Thus Bergh in 1882, believing that his new genus *Aeolidiella* had been founded on a misidentified specimen, created what he thought would be acceptable as a new specific name: *Aeolidiella soemmeringii* Bergh (non Leuckart).

4. In practice *A. soemmeringii* Bergh, 1882 non Leuckart has been ignored by virtually all subsequent authors, while *Eolida soemmerringii* F.S. Leuckart, 1828 has been consistently quoted as the type species of the genus. Because Leuckart's specimens are lost and Bergh's specimen was totally destroyed during dissection, it is impossible to ascertain:

(i) whether *Eolida soemmerringii* Leuckart is a synonym of

Doris caerulea Montagu, or

(ii) whether either Leuckart's or Bergh's specimens are referable to any of the present recognised species of *Aeolidiella*. The only certainty is that Bergh's anatomical description indicates that his specimen belonged to the genus *Aeolidiella* as generally employed by authors in recent years throughout the world.

It is therefore desirable to suppress both nominal species *E. soemmerringii* Leuckart and *A. soemmeringii* Bergh while designating a new type species for the genus.

5. In 1969, Tardy (*Bull. Inst. Oceanog. Monaco*, vol. 68, p. 34) suggested that *A. soemmeringii* 'Leuckart' Bergh, 1864 non Leuckart, 1828 may be a synonym of *Aeolidiella alderi* (Cocks, 1852, *Naturalist*, vol. 2, p. 1) and Lemche (pers. comm.) was convinced that such a synonymy was justified. Therefore, a relevant solution would involve the designation of *A. alderi* (Cocks, 1852) as a new type species for the genus.

6. Cocks (1852) based his type description of *A. alderi* on several specimens collected near Falmouth, England, but only one of Cocks' specimens sent to Alder has been preserved, and this is in the collections of the British Museum (Natural History). There is no reason to assume that this animal is the holotype or even a syntype, and it is badly damaged, the radula and some of the visceral organs having been removed. I therefore propose to select an intact specimen, 29 mm in length alive and collected by Mr. D.R. Seaward at Portland, Dorset on 2nd March, 1980 to be designated as the neotype of *Eolis alderi* Cocks, 1852. This specimen is deposited in the British Museum (Natural History), No. 198093.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:

(a) to set aside all designations of type species for the nominal genus *Aeolidiella* Bergh, 1867, made prior to the ruling here requested, and having done so, to designate *Eolis alderi* Cocks, 1852 to be the type species of that genus;

(b) to suppress the following specific names for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(i) *soemmerringii* Leuckart, 1828, as published in the binomen *Eolida soemmerringii*;

(ii) *soemmeringii* Bergh, 1882, as published in the binomen *Aeolidiella soemmeringii*;

(2) to amend entry no. 1720 on the Official List of Generic Names in Zoology to read: '*Aeolidiella* Bergh, 1867 (gender: feminine), type species, by designation under the plenary powers, *Eolis alderi* Cocks, 1852;

(3) to place the specific name *alderi* Cocks, 1852, as published in the binomen *Eolis alderi* (specific name of type species of *Aeolidiella* Bergh, 1867) on the Official List of Specific Names in Zoology;

(4) to delete entry no. 2152 from the Official List of Specific Names in Zoology;

(5) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology:

  (a) *soemmerringii* Leuckart, 1828, as published in the binomen *Eolida soemmerringii*, and as suppressed under the plenary powers in (1)(b)(i) above;

  (b) *soemmeringii* Bergh, 1882, as published in the binomen *Aeolidiella soemmeringii*, and as suppressed under the plenary powers in (1)(b)(ii) above.

ALPHEUS LOTTINI GUÉRIN, 1829 (CRUSTACEA, DECAPODA): PROPOSED CONSERVATION. Z.N.(S.)2370

By Albert R. & Dora M. Banner (*Hawaii Institute of Marine Biology, University of Hawaii, Honolulu, Hawaii 96744, U.S.A.*)

In 1979 Holthuis, pp. 7–10, proposed the substitution of the name *Alpheus sublucanus* (Forskål, 1775) for the currently used *Alpheus lottini* Guérin, 1829. In his publication Holthuis gives a thorough and excellent discussion of the various names used for this species, here given in rapid review in chronological order of general usage:

Alpheus laevis Randall, 1839. This was the most commonly used name for the species in the 19th century.

Alpheus ventrosus Milne Edwards, 1837. While Coutière in 1897, p. 195, pointed out that this species was the same as *A. laevis*, he continued to use Randall's name until 1905 (p. 882), when he stated he had re-examined the 'types' of Milne Edwards and had no doubt that the two nominal species were identical. Only a few workers used Randall's name after Coutière's 1905 publication became available, although it persisted in the literature until 1921 (Urita, vol. 33. p.216).

Alpheus lottini Guérin, 1829. (The date given is of the publication of the plates — see Holthuis 1961, p. 168 — while the description was published in 1838). Kingsley, 1882, p. 113, after the examination of the types of *A. lottini* and *A. laevis* stated that only one species was involved and that *A. lottini* was the senior synonym. Only Sharp in 1893, p. 113, followed Kingsley's lead until Holthuis cited him in 1958 (p. 22).

However, Stebbing in South Africa did revive *A. lottini*, apparently independently, in 1915, p. 82, and 1919, p. 123, and he was followed by Barnard, 1950, p. 748 and Macnae & Kalk (first ed., 1958, not seen; second ed., 1969, p. 37 ff.) also from South Africa. Banner, 1958, p. 166 (published in April) suggested that the name *A. lottini* be suppressed as a *nomen oblitum*. Holthuis, 1958, p. 22 (published in September) reviewed the history of the names used for the species and firmly supported the use of Guérin's name. Banner & Banner, 1964, p. 89, conceded that the 'fifty-year rule' (Article 23b of the 1961 code) precluded the retention of the name *A. ventrosus*. Subsequently, *A. lottini* was used more and more extensively (see listings, paragraphs 6 and 7).

Alpheus sublucanus (Forskål, 1775). Forskål's name, published posthumously, was almost entirely ignored by all carcinologists for two centuries. Holthuis (1979, *loc. cit.*) has suggested that the name was not used by those working with the

Indo-Pacific fauna as it was based almost entirely upon color notes taken in the field and that by the time specimens were returned to Europe in preservative, the distinctive coloration would have faded (Guérin reported that his type for *A. lottini* was of 'jaune verdâtre dans l'alkool'). There is no indication that any type specimens were ever brought back by the ill-fated expedition to 'Arabia Felix'. Holthuis, however, while collecting in 1962 in the southern portion of the Red Sea with Forskål's colour description before him, found that the species then known as *A. lottini* agreed with Forskål's terse description. He therefore raised Forskål's name as the senior synonym to replace *A. lottini (loc. cit.)*.

Dr. Holthuis has kindly listed for us all the uses of *sublucanus* that he knows of in the literature:

HERBST, 1792. *Versuch einer Naturgeschichte der Krabben und Krebse* (Berlin and Stralsund), vol. 2 (2), pp. 66–67.

FISHELSON, 1971. *Mar. Biol.*, vol. 10(2), p. 121 ff. (coral reef ecology).

MERGNER & SCHUHMACHER, 1974 (publ. Dec., 1974). *Helgoländer wiss. Meeresunters,* vol. 26(34), pp. 238–356, tab. 6, 13 (coral reef ecology).

HOLTHUIS, 1980. *FAO Fish. Synop.* (125) Vol. 1, pp. 122–123 (distribution, listing of synonyms, etc., together with remarks on the use of the name as a senior synonym).

The use by Fishelson of Forskål's name was in violation of the 'fifty-year rule' then in force. The Mergner & Schuhmacher article was published after the revision of Article 23 had appeared (in August, 1974) so it was not in violation; however, that article merely carried Forskål's name in two extensive faunal lists without comment on the change. Dr. Holthuis has stated that he applied the names used by Dr. Fishelson (personal communication) while Mergner & Schuhmacher specifically acknowledge his help. Thus, while the name *A. sublucanus* has appeared four other times in the literature since 1970, all uses were those of Dr. Holthuis and he did not explain the synonymy of *A. sublucanus* until late 1979.

2. The species has also been placed under two different generic names and been given three different trivial names. These are recorded and accepted synonyms and do not affect this discussion.

3. Forskål, as a student of Linnaeus, used the linnaean genus *Cancer* for this species, but he did state that the animal was '*macrourus*'. Beyond that he gave almost no morphological details that would separate this species from other genera and families of shrimp-like decapods. He did mention '*antice spina oculis longiore*' but made no mention of the characteristic orbital hoods that are found in all species of the genus *Alpheus*; he also mentioned that the

left chela was larger — a type of asymmetry that is also found in unrelated shrimps, as in the PONTONIINAE.

4. The identification by Holthuis therefore rests largely upon the colours described by Forskål. Forskål stated that the shrimp was "*incarnatus* [usually translated as flesh-coloured or pink], *dorso nigro*"; he also specified "*Antennae nigrae...Chelae...dorso nigrae, lateribus fuscopunctatae...*" In the literally hundreds of specimens of this species that we have collected through the breadth of the Indo-Pacific we have found the colour to be quite variable. The ground colour is usually an orange-red of various degrees of intensity and the lateral portions of the body and the chelae usually bear spots of deeper red to red-brown. In some geographical areas individuals may bear a mid-dorsal longitudinal stripe of the colour of the mottling or even darker, at times with the red-brown approaching blackness. We are currently publishing in a paper on the alpheids of the Red Sea some colour notes on *A. sublucanus–lottini* made by Dr. Holthuis on a specimen he collected from the coral *Stylophora* in the Dahlak Archipelago in which he states the general colour was 'orange-brown...[with a] very dark brown longitudinal band... The sides of the body are a much paler brown with an orange tinge. The tailfan is dark brown... The antennular and antennal peduncles are brown... The fingers of the large chela are reddish brown, the palm is lighter reddish brown beneath; the upper half... shows dark (blackish) spots...' While Dr. Holthuis is describing a darker specimen than we usually have seen, and a lighter specimen than that which Forskål was attempting to describe, we concede his description is close enough to that of Forskål to support his contention that Forskål was indeed describing the species now known as *A. lottini*.

5. However, the question is not whether the specimen seen and named by Forskål was the species now known as *Alpheus lottini*, but whether the revival of Forskål's name to replace that of Guérin follows the present interpretation of the Law of Priority as stated in Article 23, section (a–b) of the present rules. Holthuis contends that the use of *A. sublucanus* 'might even do away with the controversy of *ventrosus-lottini*'. We contend that the controversy is now over and that the name *A. lottini* is now stabilized.

6. Holthuis states that *A. ventrosus* was 'seriously challenged by *A. lottini* after 1955'. Our bibliography indicates that the serious challenge occurred only with the publication of Holthuis' paper in September, 1958, and we find only five authors using the name *A. ventrosus* after that date:

BANNER, 1959. *Pacific Sci.*, vol. 13, p. 141 (distribution and colour notes; paper in press when Holthuis' 1958 paper was received).

AL-KHOLY, 1961. *Publ. mar. biol. Sta. Al-Ghardaqa*, no. 11, pp. 71–86 (not seen).

JOHNSON, 1962. *Bull. natn. Mus. St. Singapore,* vol. 30, p. 51 (distribution).
PATTON, 1966. *Crustaceana,* vol. 10, p. 282 (commensalism).
McNEILL, 1968. *Sci. Repts. G. Barrier Reef Exped.*, vol. 7, p. 15 (distribution).

7. Holthuis further states that 'between 1955 and 1975 I counted 17 uses of *A. lottini* and 10 of *A. ventrosus*'. We, using the 1958 date of his publication, find 18 authors in 26 separate publications have used *A. lottini:*

FOURMANOIR, 1958. *Nat. Malgache,* vol. 10, p. 119 (distribution).
CHACE, 1962. *Proc. U.S. natn. Mus.*, vol. 113, p. 608 (distribution).
TIWARI, 1963, *Ann. Fac. Sci., Saigon,* 1963, p. 285 (distribution).
BANNER & BANNER, 1964. *Pacif. Sci.*, vol. 18, p. 38 (acceptance of name change and distribution).
———1966. *Siam Soc. Monogr.*, no.. 3, p. 91 (redescription and distribution).
———1967. *Bishop Mus. Occ. Pap.* vol. 23, p. 267 (distribution).
———1968. *Micronesica,* vol. 4, p. 281 (distribution).
MACNAE & KALK, 1969. *A natural history of Inhaca Island, Moçambique* (2nd ed.,), pp. 37 ff. (distribution).
KENSLEY, 1970. *Ann. S. Afr. Mus.*, vol. 57, p. 105 (distribution).
BANNER, 1970. *Hawaii Institute Geophysics* 70–23 160 (distribution).
CASTRO, 1971. *Pacif. Sci.*, vol. 25, p. 400 (commensalism).
GARTH, 1974. *J. mar. biol. Ass. India,* vol. 15, p. 198 ff. (distribution).
BRUCE, 1975. *Endeavour,* vol. 4(121), p. 25 (colour notes).
ABELE, 1974. *Smithson, Contrib. Zool.*, no. 176, p. 72 (vol. for 1975) (distribution).
———& PATTON, 1976. *Journ. Biogeogr.*, vol. 3, p. 37 (distribution).
BRUCE, 1976. *Micronesica,* vol. 12, p. 92 (commensalism).
GLYNN, 1976. *Ecolog. Monogr.* vol. 46, p. 443 (ecology).
LASSIG, 1977. *Proc. 3rd Intern. Coral Reef Symp.* vol. 1, p. 569 (commensalism).
——— 1977. *Mar. Biol.*, vol. 42, p. 86 ff. (commensalism).
BANNER & BANNER, 1977. *Bull. Br. Mus. nat. Hist.* (Zool.), vol. 31, p. 282 (on the identity of *A. thetis* White, a *nomen nudum*).
———1978. *Micronesica,* vol. 14, p. 224 (distribution).
———1980. *Pacif. Sci.*, vol. 33, p. 26 (distribution).
———1981. *Rec. Aust. Mus.* [In press] (redescription and distribution).
PEYROT-CLAUSADE, 1977. *Faune cavitaire mobile des platiers... (Madagascar).* Thèse Université d'Aix-Marseille 2 pour ... Docteur des Sciences Naturelles (distribution and coral reef ecology).
RIBES, 1978. *La Macrofaune vagile associée à la partie vivante des scléractiniares...(Océan Indien).* Thèse de Doctorat du 3me cycle en Océanologie, Université Aix-Marseille 2 (distribution and coral reef ecology).
THOMASSIN, 1978. *Peuplements des sédiments coralliens dans la région de Tuléar (S.O. Madagascar)... dans le contexte cotière Indo-Pacifique.* Thèse Dr. Sciences Université d'Aix-Marseille 2 Archiv. Original CNRS (distribution and coral reef ecology).

(We do not believe these French theses constitute publications under Articles 7, 8 and 9 under the International Code; they are offered only as examples of the current usage of the binomen *Alpheus lottini*.).

8. This species is not a rare and insignificant species known only to the specialists in the identification of macrurous decapod crustaceans. It is one of the larger of the alpheid shrimps, conspicuously coloured, abundant in living heads of coral of certain species of the family POCILLOPORIDAE wherever they are found in the coral reef environment. It not only reaches across the entire breadth of the Indo-Pacific faunal realm from the Red Sea to eastern Polynesia, but it has also jumped the 'eastern Pacific barrier', being reported from the Gulf of California to the Galapagos Islands. To give some idea of the abundance and collectability of this species, we are reporting on 118 specimens made in 57 collections from Australia, found in all Australian museums that have collections from the tropics (Banner & Banner, 1981, in press). The annotations on the bibliography above attest that the investigators of commensal relationships and those making broad studies on coral reef ecology have published upon this species. As is shown in paragraph 6, even those specializing in the nomenclature of the decapod crustaceans may lag behind in accepted changes in nomenclature by ten years. Those who are not specialists but are interested in other aspects of the coral reef problem will undoubtedly lag even more. The change from the presently accepted name will produce a decade or more of unnecessary confusion in the literature.

9. As an example of the use of the plenary powers by the Commission within the family ALPHEIDAE, may we cite Opinion 334, 1955, wherein the name *Crangon* Weber, 1795 was suppressed and the junior synonym *Alpheus* Fabricius, 1798 was placed on the Official List of Generic Names in Zoology. This was despite the clear priority of Weber's publication and despite the utilization of Weber's name by almost all American and Australian carcinologists following M.J. Rathbun's revival of the senior synonym in 1904 (p. 170). Although we then protested the change on the basis of priority (1951, p. 74), we now commend this action for promoting stability and universality.

10. We therefore request that the International Commission on Zoological Nomenclature:

(1) use its plenary power vested in Article 79 to suppress the specific name *sublucanus* as published under Forskål's authorship in 1775 as *Cancer sublucanus,* a specific name virtually unused from its time of publication until 1979, for the purposes of the Law of Priority, but not for those of the Law of Homonymy;

(2) place on the Official List of Specific Names in Zoology the specific name *lottini* Guérin, 1829, as published in the binomen *Alpheus lottini*;

(3) place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *sublucanus* Forskål, 1775, as published in the binomen *Cancer sublucanus*.

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Comment on the above Application

By L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands*)

The identity of Cancer sublucanus *Forskål, 1775.*— The species was first published in P. Forskål's *Descriptiones Animalium*, 1775, a well-known early publication on Red Sea animals. Petrus Forskål (1732–1763) took part as a zoologist in the 1761–1767 Danish expedition to Arabia and died on 11 July 1763 in the Yemen. His notes were taken to Denmark by Carsten Niebuhr, the leader and sole survivor of the expedition, and it was he who saw to it that the *Descriptiones Animalium* were published. Because Forskål had not had the time to work out his notes himself, the descriptions of the new species give relatively little morphological information and relatively many details on the colour of the live animals. Many of the species described by Forskål (especially in fishes, crustaceans and other invertebrates) can be recognised from his descriptions, and for those his names are widely used. As Crustacea lose their colour when preserved (one of the

reasons why Forskål gave so much attention to it in his notes), several of Forskål's descriptions could not be correctly interpreted by reference to discoloured museum specimens. For this reason, when taking part in the 1962 to 1965 Israeli southern Red Sea expeditions, I took with me copies of Forskål's descriptions of those of his species of Crustacea whose identity was still doubtful. I made special efforts to identify his dubious species (among which was *Cancer sublucanus*) by comparing his descriptions with living animals. In many instances this method proved successful and I was often amazed at the accuracy of Forskål's colour descriptions.

The description of *Cancer sublucanus*, both in its morphological part (size 1.5 inches, body compressed, chelae ovate-oblong, compressed and asymmetrical, ocular spines present), and in the part dealing with the colour (body reddish, dorsally blackish brown, chelae spotted with brown) is such that there can be no doubt that *Cancer sublucanus* is the species also known as *Alpheus lottini* Guérin.

2. *The nomenclature of the species.*— During the last century and a half there has never been a period when the nomenclature of the species was stable. From 1840 to about 1910 it was, as already pointed out by Dr. and Mrs. Banner, most commonly called *Alpheus laevis* Randall, 1840, from about 1910 to 1958 *Alpheus ventrosus* H. Milne Edwards, 1837, and after 1958 *A. lottini* Guérin, 1829. But in none of these periods was the usage of one name universal. I know of no use of *A. ventrosus* after 1975, but in 1971 *A. sublucanus* started to be used. I have counted six uses of *sublucanus,* 23 of *lottini,* 34 of *laevis* and 44 of *ventrosus.* Thus by conserving *lottini,* one would save the least used of the three most widely used synonyms of *sublucanus*. The fact that *ventrosus* was used up to 1975 (though much less frequently than *lottini* towards the end of that period) shows that the latter name has never gone unchallenged, and that although it has been the name most frequently used for the species in the last 25 years, the reintroduction of *sublucanus* in no way upsets a stable situation.

A. sublucanus has been used at least four times in the modern literature, twice in non-systematic papers dealing with reef ecology. I can set at rest the Banners' doubts about the identity of Fishelson's animals, as I examined his material myself.

The great advantage of the name *sublucanus* is its age. Published in 1775, it is one of the two oldest names for Alpheid shrimps (the other is *Astacus malabaricus* Fabricius, 1775) and the chance of its being replaced by a still older synonym is very small. Its use will therefore finally give stability to the nomenclature of the species, which has suffered so much in this respect in the last century and a half. In this case, it seems best to adhere to priority and adopt Forskål's name for the species.

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CORRIGENDA

Vol. 30

page 143, paragraph 9, line 4: for Name No. 456 read Name No. 465.

Vol. 37

page 78, lines 16-17: read 'Ophioderma Müller & Troschel, 1840 (gender: neuter)'.

page 217, lines 21-22: for *'Consid. gén. partic. Crust. Ins.'* read *'Hist. nat. gén. partic. Crust. Ins.'*.

page 263, line 39: for 'Candèz' read 'Candèze'.

page V, line 9: for 'Musicicapa' read 'Muscicapa'.

Vol. 38

page 54, Opinion 1163: Hahn should have been recorded as casting a negative vote in Part 1 and Part 2. Habe should not have been recorded as casting a negative vote in Part 1. The result of the Vote is not affected.

page 100, line 24: for 'Sneling' read 'Sneli'.

page 102, line 23: for 'G.F. Müller, 1894' read 'G.W. Müller, 1894'

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